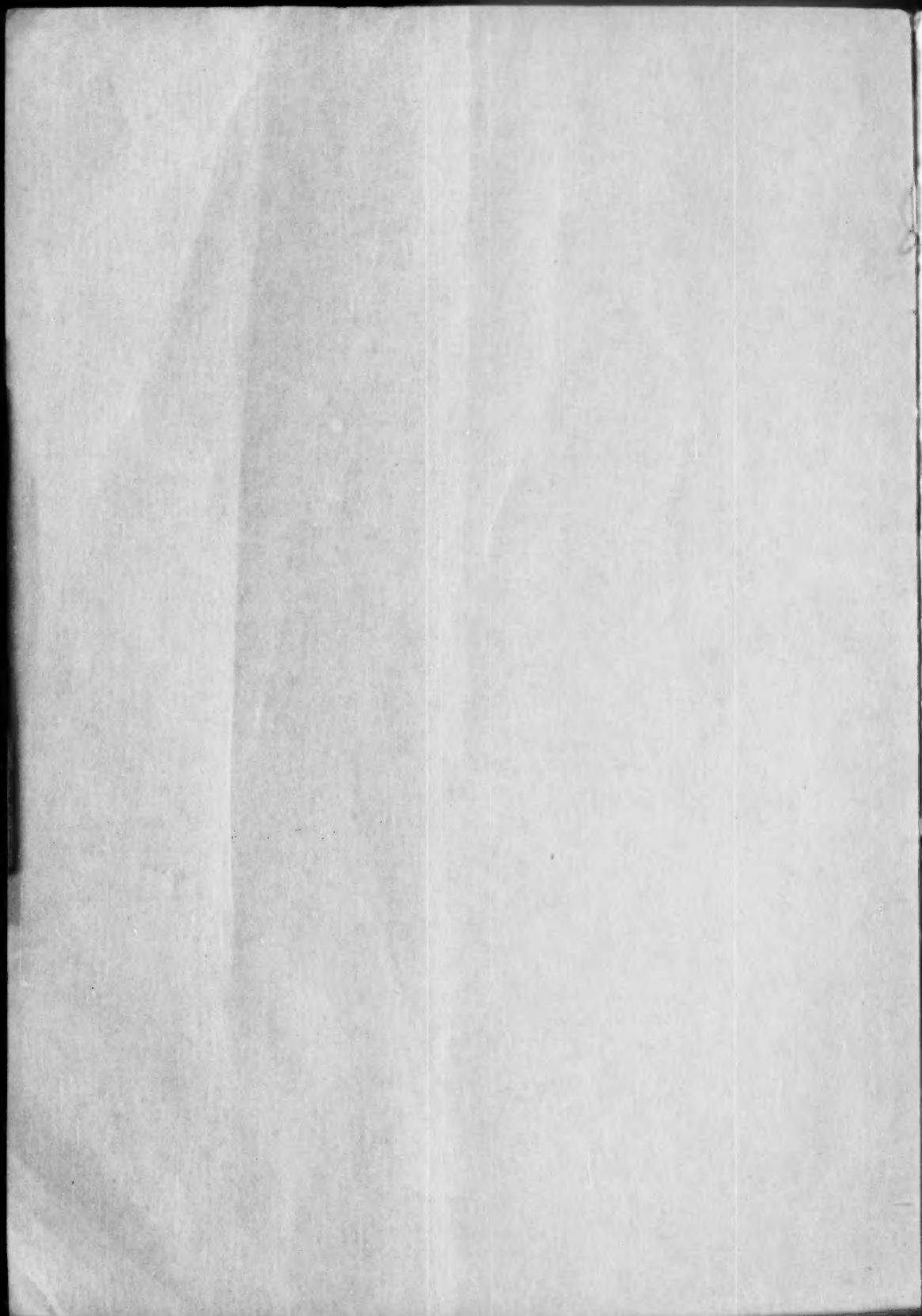


# **THE AMERICAN JOURNAL *of* PSYCHIATRY**

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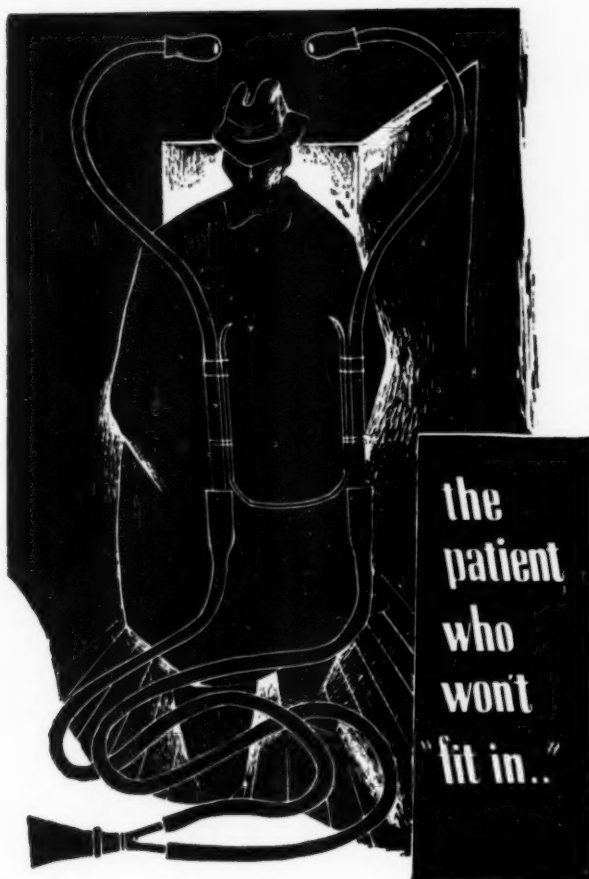
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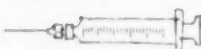





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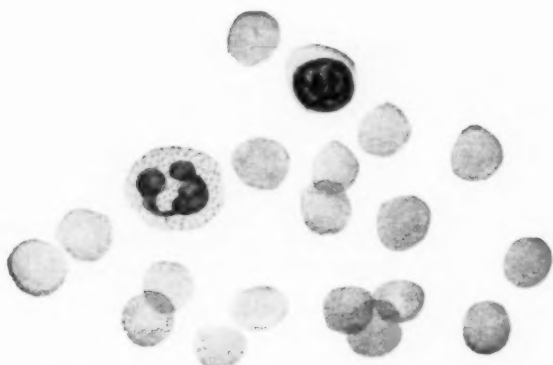
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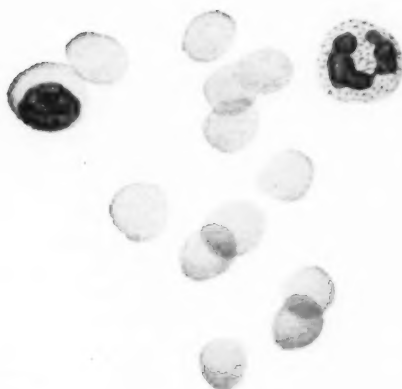
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# Anxiety and Autonomic Lability as the Basis of Functional Disorders

Emotional response to the stress of life is the primary source of illness in a steadily increasing number of cases. *Weiss* and *English*<sup>1</sup> estimate that as high as two-thirds of all patients have disorders due either entirely or in part to emotional factors and anxiety. *Ebaugh*<sup>2</sup> refers to anxiety as "... the universal disease of our times".

Complete examination discloses no organic basis for the symptoms in these cases, yet the clinical picture may mimic a true organic disease.

The symptom-complex usually involves several or-

gan systems.<sup>2,3,4</sup> In such cases, the anxiety is channeled into organ dysfunction via the autonomic nervous system.<sup>2,3,5,6</sup> Some of the effects produced by exaggerated activity of a labile autonomic system are tabulated below. Many of these, it will be noted, are related to the symptoms which feature prominently in functional disorders. The symptoms in any one case are not necessarily limited to one organ system. Usually some are referable to sympathetic hypertonicity, others to parasympathetic hypertonicity.

ORGAN SYSTEM	SYMPATHETIC HYPER- TONICITY	PARASYM- PATHETIC HYPER- TONICITY	SYMPTOMS OF FUNCTIONAL DISORDER	AUTONOMIC LABILITY
GASTRO- INTESTINAL	Hypomotility Hyposecretion Intestinal Atony	Increased Salivation Hypermotility Hypersecretion	Belching Heartburn Nausea & vomiting Mucous diarrhea	When a patient exhibits a clinical picture suggestive of non-organic dysfunction, the diagnosis of Functional Disorder can be facilitated by use of the following indications of Autonomic Lability: Variable Blood Pressure Temperature Variations Changing Pulse Rate Deviations in B.M.R. Exaggerated Cold Pressure Reflex Oculo-cardiac Reflex Abnormalities Glucose Tolerance Alterations
CARDIO- VASCULAR	Rapid heart rate Peripheral vaso- constriction Slight rise in blood pressure	Reduced heart rate Vasodilatation Lowered blood pressure	Palpitation Sinus tachycardia Premature systoles B.P. low in some; elevated in others	
RESPIRATORY	Dry nasopharyngeal mucous membrane Bronchial relaxation	Increased nasopharyngeal secretion Bronchial constriction Laryngospasm	Dry mouth and throat Difficulty in breathing Sighing respiration	
GENITO- URINARY	Bladder detrusor relaxed; Sphincter contracted Ureter tone and motility decreased	Bladder detrusor contracted; Sphincter relaxed Ureter tone and motility increased	Urinary frequency Difficulty in urinating Dysmenorrhea Menstrual irregularity	

This tabulation is based on data available in references 1 to 6 stated below.

Primarily, the patient visits his physician out of concern over his symptoms. At this point, he is either unaware of his basic emotional problem or ignores it. A complete examination will rule out organic disease and thus reassure the patient. Then, treatment is directed along two lines: First, relieve the patient of subjective distress by drug therapy.\* He will then be more cooperative in discussing his emotional problems. Then, having uncovered the basic problem, guidance is given toward correcting

unhealthy situations and attitudes.

\*The fact that autonomic dysfunction plays a large part in mediating the disturbance suggests autonomic sedation. A number of independent studies indicate that this therapeutic approach is effective.

<sup>7,8,9</sup> The investigators used ergotamine tartrate (adrenergic blockade), levo-alkaloids of belladonna (cholinergic blockade) and phenobarbital (central sedation) in the form of *Bellergal* tablets. The total effect is an integrated sedation of the entire A.N.S.

1. WEISS, E. and ENGLISH, O.: *Psychosomatic Medicine*, ed. 2, Saunders Co., 1949.
2. EBAUGH, F. G.: *Postgrad. Med.* 4: 208, 1948.
3. WILLIAMS, E. Y. et al.: *J. Nat. M. A.* 42: 32, 1950.
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TREATMENT OF THE SEX OFFENDER IN DENMARK<sup>1</sup>

PAUL W. TAPPAN, PH. D., JUR. SC. D., NEW YORK CITY

A great amount of attention has been devoted to the abnormal sex offender in the United States in recent years. Widespread anxiety has been stimulated by an apparent increase in sex crime and more especially by the fulminations of the press against the "sex maniac." The result has been a hysterical haste to apply heroic but naive and ill-considered measures to extirpate the evil. Popular thinking and official action have been misled by an assortment of myths relating to the criminal sex deviate. The writer has analyzed in detail elsewhere<sup>2</sup> the movement in which some 15 states have enacted special legislation to deal with the problem, laws that in several significant respects violate the basic traditions of our criminal jurisprudence and sound tenets of psychiatry. The statutes provide in most of these jurisdictions for the costly detention of the "sex psychopath" in state mental hospitals or correctional institutions for indefinite periods "until cured." In several states it is not necessary under the terms of the laws even to prove the commission of a sex offense in order to apply the statute, a medical diagnosis of the psychopathic condition constituting sufficient basis for the action. The effect has been to channelize numbers of minor sex deviates—exhibitionists, peepers, and homosexuals, for example—into already overcrowded facilities that have no remedy to offer for these disorders.

Correctional institutions charged with handling sex deviates have provided for the most part no special treatment methods differentiated from those applied to ordinary criminals, and hospitals have offered little beyond custody. There have been exceptions,

represented by empirical efforts here and there to probe the etiology of sexual abnormality and to discover methods of more successful therapy. There has been some evidence, moreover, of an increasing awareness of the need for extended research in this field. State commissions to consider policy in dealing with the sex offender are functioning in New Jersey, California, Michigan, and other jurisdictions.

The unusually stringent nature of most of the recent legislation, together with the gross inadequacy of the available treatment facilities and the wide disparity in views among authorities as to the means of meeting the problem, have pointed to the desirability of exploring the experience of certain European countries where there has been a greater amount of experimental effort to handle the sexual deviate effectively. During the summer of 1950 the writer talked with leading psychiatric and legal authorities in several countries, particularly in Denmark, that have employed special approaches in their work with sex offenders<sup>3</sup> and inspected treatment facilities that are being used. This has provided a measure of useful information concerning standards employed in selecting sex deviates for specialized treatment, methods of therapy in use, and evaluations of their efficacy.

## SEX OFFENDERS NEEDING SPECIAL TREATMENT

In the interest of public security and economy the selection of cases that require special treatment is a basic and initial problem of policy, one that has received all too little attention thus far. For the most part, both here and in the European countries investigated, the focus is upon the so-called "sexual psychopath," but this group is not at all sharply defined either in law or administra-

<sup>1</sup> The research on the basis of which the material in this article was prepared was supported in part by grants from the American Philosophical Society and by the American Social Hygiene Association.

<sup>2</sup> (a) *The Habitual Sex Offender*. State of New Jersey, section 1 and 3. (b) *The sexual psychopath*. *J. Soc. Hyg.*, 35: 354, Nov., 1949. (c) *Sex offender laws and their administration*. *Fed. Probation*, 14: 3, 32, Sept. 1950.

<sup>3</sup> The writer discussed the problems involved in this paper with authorities in Denmark, Sweden, Norway, Finland, the Netherlands, Switzerland, and England.

tive practice, and there are no consistent, soundly guided criteria for the classification of these sex offenders.

The most that one may conclude from the evidence thus far available is that there does exist a rather distinct group of sex-deviated habitual offenders who are nonpsychotic but distorted in their emotional and volitional responses, a group requiring specialized treatment because of their hazard to the community. These individuals engage in repetitive, compulsive, and dangerous sex crimes. But they constitute a very small percentage of all sex offenders and, indeed, only a small part of those usually labeled psychopaths. The nature of this group will be considered further in our summary of the treatment program in Denmark.

#### THE DANISH PROGRAM FOR THE PSYCHOPATH

Denmark is unique in possessing an institution for psychopaths that is neither an ordinary prison nor a hospital but a highly specialized social-psychiatric facility for treatment and training. The Asylum for Psychopathic Criminals at Herstedvester was established in 1935 for the treatment of psychically abnormal individuals who are neither psychotic nor feeble-minded. Offenders are sent here under Section 17 of the Penal Code of 1930 which provides:

If a person at the time of an offense owing to mental underdevelopment, weakness or derangement, including sexual abnormality, was in a mental state of a more permanent nature, but not of a character provided for in paragraph 16 [which establishes exemption from criminal responsibility to individuals suffering from insanity or mental deficiency] then the court shall decide, after due consideration of a medical certificate and all other relevant circumstances, whether the accused would benefit from punishment.

The classification that occurs under Sections 16 and 17 apparently leaves something to be desired, since psychopaths, mental deficient, psychotics, and offenders suffering from brain diseases have been found to be scattered through the several types of institutions. There is a distinct concentration of "psychopathic personalities" among those sent to the asylum, however, along with a number of individuals displaying psycho-in-

fantilism and mental deficiency.<sup>4</sup> In a study of the first 300 detainees remanded there, the superintendent found 75% to be marked by "character insufficiency" and 18% by "psycho-infantility."<sup>5</sup>

In accordance with its purpose, this institution is operated as a therapeutically oriented facility under a superintendent, Dr. Georg K. Sturup, who is physician-in-chief and psychiatrist. He is aided by a staff including 4 forensic psychiatrically trained assistant physicians and 2 young doctors, 1 psychologist, 5 social workers, 145 custodial officers with prior hospital training, and teachers, workshop leaders (20), and clerks. The population is usually somewhat under 300, in addition to nearly 200 others who are on parole and under the direct supervision of the institution. Decision of the courts to commit to Herstedvester is based in accordance with the statute upon certification from the Medico-Legal Council, a board made up of the outstanding authorities in the legal and medical fields in Denmark—another unique feature in the forensic-correctional system in this country.

Psychopathic detainees in Denmark are committed to Herstedvester for an indeterminate period. This is felt by the medical authorities there to be a particularly important aspect of treatment. The relative elasticity of the program and its treatment atmosphere—differing markedly from the custodial experience to which many of them have been previously exposed in ordinary

<sup>4</sup> Sturup, Georg K. *Treatment of Criminal Psychopaths*. Report on the Eighth Congress of Scandinavian Psychiatrists, 1946, pp. 28-30.

<sup>5</sup> Sturup, Georg K. *Treatment of Psychopathic Criminals in Denmark*. In *Danish Psychiatry*, Det Schonbergske Forlag, Copenhagen, 1948, p. 47.

In Sweden, where treatment of the sex offender in specialized institutions for psychopaths is under the direction of the prison administration, there is a more punitive orientation of the program. Psychiatric authorities from that country indicated to the writer that this proves a serious handicap to treatment. Norway has proposed the development of an institution comparable to the Danish facility and with a similar psychiatric administration. Such an institution has been strongly recommended to the legislatures in New Jersey, New Hampshire, and Wisconsin. Unfortunately, while these states have deemed it necessary to enact fresh legislation concerned with sex offenders, they have not seen fit to appropriate funds for any specialized treatment.

prisons or hospitals—quite generally produces at the start an optimistic and receptive attitude in the offender. This is often followed, however, by a sense of extreme disappointment, generated mainly by the indefinite span of confinement that faces him. Irritability and hopelessness are common reactive patterns in this phase of the detainee's development. At that point effective psychotherapy may often direct the patient's recognition of his own responsibility to cooperate, to assume an active role in the treatment process if he is to change and secure his freedom. He must be brought as early as possible to discover that it is his own attitudes and behavior that will determine his progress. Dr. Sturup has phrased it thus:<sup>6</sup>

I once more want to stress that the treatment has an actively stimulating effect if the detainee realizes that his stay in the asylum is of indefinite duration. The indefinite time is a serious load on the human mind, but once the detainee gets the impression that the struggle will avail—then it happens time and again that we see a man really attempting to understand his own position, and that is his chance of holding his own outside the walls.

Treatment at Herstedvester depends heavily upon the active program through which the inmate participates in a close relationship with the staff. There is a full 8-hour work day employing quite diversified facilities in useful occupations: gardening, printing, book-binding, joinering, toy-making, tailoring, and all sorts of building repairs. A modest stipend, based on piece rates wherever possible, is paid for the work performed, one-half of which may be spent at the institutional commissary and the remainder saved until after release. Effort is directed toward finding a sort of work in which the individual may develop some sense of mastery and satisfaction. Free-time activities are also provided to offer the detainee a choice of varied but generally constructive pursuits. To a great extent these represent club activities, with a considerable amount of planning and self-determination in the small groups, and include sports, crafts, hobbies, games, theatre, and study groups.

Dr. Sturup points out that psychotherapy cannot be conducted in the same way in a

closed institution where the patients are under an indefinite detention at the discretion of the authorities as in private consultation practice. He finds it most effective to exploit periods of emotional distress and passion to talk out with the individual *at that time* his reactions and the reasons for them, drawing analogies to his prior behavioral and, particularly, his criminal patterns. He may be shown alternative methods of response that will provide him satisfying outlets without involving him in difficulties with his environment. Thus he may be brought in time to face reality and authority more directly and to modify his behavior. The close coordination of psychotherapy with the institutional program of activities is increased by keeping the staff fully informed of the progress of individual patients through regular weekly meetings and through the daily contacts of personnel. All this implies, of course, a far closer relationship and treatment interaction of the superintendent and his staff to individual patients than is possible in the traditional large correctional or psychopathic institution with its proportionately small ratio of treatment personnel. Moreover, the interpersonal relations at Herstedvester are relatively informal and nonauthoritarian, with encouragement of self-expression—gradually redirected—from the inmates.

Although Herstedvester is a close security institution, containing mainly habitual and dangerous offenders who have displayed some degree of psychiatric deviation, the institution provides for varying degrees of custody both within and outside its walls. One group of detainees who have proven their dependability is housed in most attractive quarters which they have decorated themselves and where they enjoy a maximum of freedom. An open, 6-acre farm, Kastanienborg, located a short distance from Herstedvester, has been acquired where 20 men preparing for release on parole, some of them castrates, are occupied in market gardening. They have a simple, nonrestrictive environment and live at a converted farmhouse. There is also a half-open branch, surrounded by a light wire fence, for 40 men located in an old manor house, Lekkende, in South Zealand where detainees work in gangs under supervision. The diversification of facilities permits a

<sup>6</sup> Sturup, Georg K. *Treatment of Criminal Psychopaths*, *op. cit.*, p. 33.

good measure of classification and transfer, facilitating the adjustment of program to individual. An important additional motivation is provided by "exit passes." Detainees who have been diligent and well-behaved for a year may receive permission to leave the institution for 8 hours each month, accompanied by one of the institutional social workers. These excursions are found to be a real solace, especially for men who are confined for long periods, although they are frequently depressed upon returning to the institution. They are moved, at the same time, to strive toward freedom.

#### CASTRATION FOR THE SEX PSYCHOPATH<sup>7</sup>

The most striking single feature of the programs in those European countries that have given some special attention to the problem of the sex psychopath is the employment of castration as a method of therapy for certain cases. Castration has been used to a greater or less extent in Denmark, Sweden, Norway, Finland, Holland, Switzerland, Greenland, Iceland, and Nazi Germany. In those countries, moreover, where this treatment has been tested extensively, it has received rather strong, though not indiscriminate or uncritical, endorsement.

Denmark was the first country to enact a special castration law, first passed in 1925 and revised in May of 1935, which establishes the purpose of the treatment and the circumstances under which it may be performed. The method has received its strongest support in that country from Dr. Knud Sand, the Danish sexual biologist who is professor of forensic medicine at Copenhagen University and chairman of the Medico-Legal Council; he was responsible to a great extent both for the enactment of the sterilization-castration laws and for the research investigations into their effectiveness in treatment of the criminal.

Considerable interest was expressed in castration in Europe during the 1930's. This

was exemplified by resolutions adopted at the Berlin meetings of the International Penal and Penitentiary Congress in 1935 where the section on prevention of crime held, *inter alia*, that

2. The favorable preventive-therapeutic results from castration achieved relative to sexual disorders in cases involving a leaning toward criminality, ought to cause all States to amend or supplement their respective laws, so as to facilitate the performance of such operations upon demand or with the consent of the person concerned in order to free that person from a disordered sexual inclination which might bring in its train the committing of sexual crimes.<sup>8</sup> [Compulsory castration is also provided for.]

The large number of Nazi delegates there (425) voted unanimously in favor of the resolutions supporting castration and sterilization and ensured their passage over the vigorous objections of delegates from some of the western nations. Laws permitting castration have been enacted in the other Scandinavian countries since 1933 and Finland has been added most recently to the group. Statutes and administrative practices vary considerably in the several countries as to the circumstances under which the surgery may be performed, the ideology supporting the policy, the types of institutions used for the sex offenders, and the associated treatment measures. They are rather similar, however, in providing for castration under specified circumstances when abnormal sexuality has been evidenced by criminal behavior and a psychiatric diagnosis. The purpose of these laws is alleged generally to be therapeutic rather than punitive or deterrent.

While the preponderant attitude in the United States has been strongly hostile to castration, it is interesting to note, nevertheless, that the method has been employed sporadically in different sections of this country. Indeed, one of the earliest experiments in its use was conducted by Dr. Sharp in Indiana in 1899 on prison inmates in the effort to subdue their sexual impulses. In the 1930's castration was employed in Kansas for numerous instances of morally delinquent, mentally deficient females at the state training school. More recently in Cali-

<sup>7</sup> It should be pointed out, perhaps, that this section refers specifically to gonadectomy and not to sterilization. Sterilization of the sex offender is also practiced in the countries under consideration, but with the narrower negative eugenic purpose of preventing procreation. It has no effect upon the individual's capacity to commit sex crimes.

<sup>8</sup> Negley K. Teeters. Deliberations of the International Penal and Penitentiary Congress, 1872-1935. Temple University, Philadelphia, pp. 186-187.

fornia this type of surgery has been employed extralegally on sex offenders passing through one of the criminal courts there, the defendants receiving suspended sentences upon their consent to submit to the operation. These experiments have been narrowly limited in time and numbers, however, and they have never received any wide sanction from medical or legal authorities. Castration has been proposed to some of the legislative commissions seeking more effective policy in the handling of sex offenders, but nowhere has it been taken seriously in this country.

The Danish law of 1935 provides for castration and sterilization on a compulsory as well as a voluntary basis. The operation may theoretically be performed on an individual where the Ministry of Justice is informed by the Medico-Legal Council that his sexual instincts are such as to lead to crimes dangerous to society, to his own psychic suffering, or to his degradation. There has been serious concern, however, that such compulsory castration might be abused, and in practice a voluntary application of an offender must be submitted as well as approval by the Council and the sanction of the court before the operation can be performed. Authorities in Denmark assert that the present statute will be revised to eliminate the provision for compulsory surgery. The other Scandinavian countries and Holland also employ only voluntary castration. Germany and Switzerland, however, have provided for and applied the measure against the will of the offender. In a very recent instance in Switzerland castration was imposed in the case of a sexually aberrant murderer. Coercive castration is supported there on the ground of the necessity to incapacitate dangerous offenders.

Psychiatrists consulted on the issue have held quite consistently that in order to achieve desired psychotherapeutic objectives the patient must desire and seek castration himself, that otherwise his feelings of resentment and inadequacy may be seriously damaging and, perhaps, dangerous. Moreover, the voluntary character of this treatment may go far to minimize the potential abuses in application of this extreme measure. It must be pointed out that under the Danish practice the patient's decision to seek castration is in actuality something rather less than a free

choice on his part, since prospective candidates for surgery are under indeterminate commitments to Herstedvester, the time of their release depending upon the decision of the authorities there. They know from the customary practice that without castration their confinement may be prolonged for many years and that their submission will result in early release. In numerous cases reluctant patients have been held for years before filing application for castration. Even in these instances, however, where the motivation arises from the man's desire for freedom from institutional custody rather than from a real wish to be rid of his compelling drives toward prohibited sexuality, there is apparently a sufficient attitude of acceptance of the inevitable that the psychological as well as the organic effects of the operation may be considered benign. Castrates with whom the writer talked expressed their sense of release from the preoccupations, anxieties, and pressures that had troubled them over a period of years. Authorities stressed, however, the importance of extremely careful selection of cases for castration, quite aside from the wishes of the deviant. Critical studies of their experience in Denmark have pointed to the conclusion that the cases that are most benefitted by castration are those in which there is clear evidence of biological aberration or mental deficiency along with persistent sexual delinquency.

The Danish efforts with castration have been studied in considerable detail by Dr. Knud Sand, Dr. Louis Le Maire, and Dr. Georg K. Sturup, to discover the effects and the associated problems. Their investigations of the role of castration in the treatment of sex offenders are perhaps the most significant that have been published thus far. Inquiries by Sand and Le Maire reveal that in the 10-year period, 1929-1939, there were 4,190 sexual crimes in Denmark, of which comprehensive records were available on 3,476, including recidivists. A total of 3,185 individuals were involved in these crimes, and of this group 139 were ultimately castrated. Le Maire has analyzed the records in detail to discover the relationship between the crimes and the motives, stated in terms of the offenders' psychological condition, and the numbers of castrates in these categories.

His data (shown reproduced in Table 1) may provide both insight into the castration policy in Denmark and also some useful comparisons to American data on sex offenders (bearing in mind, however, that conceptions of sexual criminality differ between the countries).

Among the findings of Sands and Le Maire are the following significant points:

1. Castration was applied most commonly where the offender revealed sexual abnormality, mental deficiency, or psychopathy. The most important group—the "sexually abnormal" displaying repetitive and com-

3. The castrates were divided almost equally between 3 categories as to prior criminal history: those not previously convicted, those with one past conviction, and multiple offenders. However, two-thirds of the first category were mental deficient (who were found to respond favorably to castration).

4. Castration was not employed generally in cases where no special motive for the offense could be discovered, where alcohol was primarily responsible, where the offender was under 18, where he was mentally backward but not technically "deficient," or where the offense resulted from abstinence (*faute*

TABLE 1  
MOTIVES FOR SEXUAL CRIMINALITY

	Without established motive	Excess of alcohol	Puberty	Mental deficiency	Mentally backward	Sexual abnormality	Sexual abstinence	Psychopathy	Housing conditions	Senility	Ignorance of law	Ignorance of fact (victim's age)	Insanity	Infantilism	Euphrodisia	Separation	Seduction	Epilepsy	Fimicidism	Pornography	Total
Rape .....	27	21	6	20	4	2	5	8	..	..	..	..	..	..	1	..	..	..	..	..	94
Indecent behavior toward women .....	124	82	38	17	18	1	1	9	..	3	..	..	2	..	..	..	..	..	..	..	295
Indecent behavior toward girls .....	309	82	68	62	49	16	35	32	9	56	2	19	4	5	1	..	..	1	..	..	750
Indecent behavior toward boys .....	115	12	12	34	22	101	25	34	7	14	..	..	6	5	4	..	6	..	2	1	420
Exhibitionism .....	193	89	30	20	26	20	51	35	..	11	..	..	2	3	4	..	..	1	1	1	494
Father incest .....	47	33	..	8	3	3	13	10	49	8	..	..	4	1	1	2	..	2	..	..	184
Intercourse with step- or foster-daughter .....	60	11	..	6	3	2	8	5	38	1	6	..	..	1	..	2	..	..	..	..	143
Incest between brother and sister .....	21	..	14	14	7	..	1	5	15	..	..	..	..	1	..	4	..	..	..	..	82
Intercourse with minor under 12 .....	14	3	18	14	7	1	3	3	..	6	..	..	1	..	..	..	..	..	..	..	70
Intercourse with minor 12 or over .....	256	16	36	9	22	5	4	4	8	74	64	2	..	..	..	..	..	..	..	..	504
Diverse offenses .....	49	23	13	11	4	11	9	4	2	7	12	..	2	2	..	..	..	..	..	..	149
Total .....	1,215	192	215	215	165	162	155	149	124	114	94	83	28	20	11	8	6	4	3	2	3,185
Castrations .....	..	3	..	49	2	56	7	20	..	2	..	..	..	..	..	..	..	..	..	..	139

pulsive traits—was made up largely of homosexuals (those attacking young males), hypersexuals, bisexuals, paedophiliacs, exhibitionists, sadists, fetishists, masochists, and urolagniacs.

2. Recidivism rates among the sex offenders were low, the average among all offenders being 16.8%. In cases of rape, indecent behavior toward boys, and indecent exposure, however, the rates were relatively higher (22.3%, 27.9%, and 32.9% respectively). Castration was performed most commonly in cases that combined these offenses with the mental conditions noted under 1 above.<sup>9</sup>

<sup>9</sup> Le Maire notes that "legislation and the general interpretation of public morals have established

*de mieux*). In these cases the recidivist rates are generally very low and treatment of some other sort may usually prove adequate. Le Maire points out that in most cases of sex crime the recidivism rates are low, persistent recidivism is even rarer, and where recidi-

so narrow a margin regarding sexual divergences that an infringement of the existing rules will not necessarily be evidence of actual abnormalities." This observation is at least equally applicable in the United States, as Dr. Kinsey's research has evidenced so well. This may be taken to mean that in numerous instances of sex offenses there is no aberration, no great danger of recidivism, no real need for treatment. This is in accordance with the writer's observations in relation to legislative policy in the United States. See the New Jersey Report on The Habitual Sex Offender.

vism does occur, there is little probability of the type of offense becoming more serious.<sup>10</sup>

5. Castration was recommended for only a limited sphere of cases, in general where there has been marked recurrence of the deviation and considerable danger to the public. As Le Maire has emphasized: "Radical special measures should not uncritically be instituted even if demands regarding the same are repeatedly raised by both the public and the press."

Dr. Sturup has analyzed the data on 300 cases received at Herstedvester from 1935 to 1943, of whom 79 were castrated and 40 noncastrated sexual criminals, the remainder psychopaths of other types. He finds in 1950 that only 2 of the 79 castrates have been sexual recidivists, while an additional 14 have committed offenses of other sorts. Among the noncastrated, however, 16 have recidivated sexually after release, and an additional 10 have committed crimes of other sorts. The 139 nonsexual criminals who spent, on the average, between 3 and 4 years at the institution reveal a 57% recidivist rate since release. It should be remembered, however, that these cases were for the most part difficult psychopaths and repetitive offenders. Sturup concludes: "Surprisingly few disadvantages attach to castration, but even so it must, in my opinion, be used with a certain amount of discretion, especially in cases of lighter sexual offenses. The detainee must show *hyper-sexuality* beyond doubt or a *stable sexually conditioned criminality*, before we use this irreversible treatment."

#### THE SEXUAL PSYCHOPATH IN THE NETHERLANDS

As we have suggested, Danish experience at the Asylum for Psychopathic Criminals compared to efforts elsewhere appears to indicate that Herstedvester is the most effective institutional facility developed thus far to treat nonpsychotic but psychiatrically deviated sex offenders. Certainly their work has been more thoroughly reviewed by the authorities than is true in other countries. The

writer was much impressed, however, by some of the work being done in the Netherlands for the psychopath, particularly that at the Psychiatric Observation Clinic at Utrecht, a facility under the direction of chief medical officer, Dr. P. A. H. Baan. This is a central observation post with accommodations for 40 patients where prisoners from all over the country can be placed for periods of 6 to 8 weeks and through which a considerable proportion of psychopathic offenders pass. In what for a country of 10 million inhabitants is a highly diversified system of institutional resources, there are government asylums for psychopaths in Avereest and some facilities for psychopaths at the special prison at Scheveningen, with medical administration at these institutions. Each provides a fairly full program of activities. There has not yet developed a very adequate program of classification in the institutions in the Netherlands, however. At the Utrecht clinic they find that most of the so-called psychopaths prove to be deviates of other sorts: neurotics, encephalitics, endocrinological types, and characterological deviates. Not more than 10% are true psychopaths, as they interpret that term.

Views concerning the sex psychopath expressed by authorities at the Utrecht clinic differed in a number of ways from those in Denmark. Here castration is not specifically provided for by statute, but is an administrative medical therapeutic measure that must be sought by the offender. There is usually no pressure upon him to request the surgery and, as in Denmark, approval of the government must be given. The trend has been away from the employment of castration because of what they believe to be a danger of excessive personality changes. A considerable amount of experimental work has been done with other types of treatment. In particular, where the problem is one of hypersexuality the tendency is to employ hormone treatment rather than castration. They have found the administration of estrogenic substance (the female sex hormone) to be effective in such cases, with the accompanying physiological changes much less profound than those resulting from gonadectomy. The endocrinological treatment is not irreversible, of course, and in some cases can be termi-

<sup>10</sup> Le Maire found the type of offense in recidivist cases to be homologous in 73.5% of the instances. Only the cases of "abnormal sexuality" displayed rather frequent repetition and versatility.

nated after a relatively brief period. There is considerable individual variation in this respect, however, some patients requiring extended treatment. They observe that in the case of hypersexual females testosterone is not efficacious, producing in them a more erotic condition instead. Other medications have been found useful in particular types of sex deviates. Antabuse, in particular, has been employed successfully with alcoholics whose sexual aberrations have occurred as a consequence of intoxication. In such cases, so long as the offender undertakes to employ the antabuse treatment, they have found it possible usually to recommend early release from detention.

Authorities at Utrecht indicated that they found certain psychotherapeutic techniques useful in the treatment of psychopathic deviates, specifically group therapy, reeducation, and psychological treatment. They stress the importance in their experience of the careful selection of a small group of 6 to 8 members under the direction of a skilled group therapist. In their individual psychiatric treatment, their emphasis is upon aiding the patient in the *synthesis* of his experience rather than *analysis* of unconscious motives to his behavior. They note the impossibility of providing deep analysis for psychopaths from the point of view of time, budget, and personnel but stress in addition the danger in many instances of intensifying rather than resolving the neurotic conflicts of the patient. Considerable emphasis is also placed upon aftercare, with both social workers and psychiatrists continuing therapy after the patient's release from an institution. They find such treatment in the community less expensive and often more effective than retention of the patients in institutions.

#### TREATMENT OF THE SEX OFFENDER IN THE UNITED STATES

What profit may be derived here from the experience in Denmark and elsewhere in handling the sex-deviated offender? It must not be forgotten that differences in culture—in the mores, legal systems, and ideologies concerning individual and social interests, and especially attitudes related to sex and civil rights—are basically important. These determine not only what is considered improper

in the field of sex behavior but also what may be feasible in the treatment of the sex offender. It is easy enough to inveigh against what may appear from a culturally relativistic point of view to be absurd standards concerning sex and personal liberties. Such an exercise is futile, however, in reformulating social policy: bitter experience has often attested the evil that may flow from legislation departing too greatly from the social mores. It would seem, however, that with appropriate regard to differences in the climate of values certain interpretations may be derived from European experience—some rather definitely, others more tentatively.

1. "Sexual psychopathy" is apparently not a diagnostic clinical entity, at least as that term is customarily employed. There is too wide a variety in the forms of sexual offense, in the etiology of the behavior, and in the treatment needs of different offenders to subsume it all under this misleading term. In fact, there appears to be no close relationship between specific psychiatric or constitutional conditions and particular sex crimes.

2. Castration, however effective it may appear to be in European experience with specialized types of sex deviates, cannot gain favor in the United States. At best it is a technique that should be employed, according to authorities abroad, for only a very limited, carefully selected group and with supplementary treatment of a social-psychiatric nature. Castration is a nonreversible procedure subject to serious abuses as Nazi experience has thoroughly proved. What with the hysteria so easily provoked in the United States relative to sex criminality, there is very real danger that the castration technique, if it were adopted here, would too easily be misapplied. Moreover, other methods of treatment, such as glandular therapy, which constitute far less of an assault upon the person, can be employed with effects rather similar to those produced by castration (*viz.*, desexualization and reduction of aggression). With the too-easy answer of castration at hand, once used, the development of other and superior methods would very possibly be neglected. Finally, though there is disagreement on the point, it appears that castration may produce pronounced personality as well as physical changes that may complicate the

problems of the deviate and increase his danger to the community.

3. The data from Denmark confirm recent findings in the States: that most sex offenders do not recidivate and that those who do tend to repeat their prior offenses rather than to develop more serious forms of criminality. Very few display marked psychiatric aberration and most of them do not require special treatment methods differentiated from those applied to other types of law violators. The data suggest, however, that suspended sentence and probation could safely be used far more frequently than they are.

4. It appears from the experience in Europe that the difficult and dangerous cases are those in which there is a pattern of repetition of offenses along with serious psychiatric aberration. The formulation by the Group for the Advancement of Psychiatry, incorpo-

rated into the 1950 sex legislation in New Jersey, appears to designate this group as precisely as can be done at the present time: *offenders displaying repetitive-compulsive sex behavior in aggressive attacks upon women or children.*

5. A treatment and research center comparable to Herstedvester, with a strong social-psychiatric orientation, is a primary requisite to the more effective handling of these sexual deviates. It appears that experimental work such as that carried on in Denmark and the Netherlands could and should be developed in such an institution, employing techniques of group and individual psychotherapy, endocrinological and other medical treatment, along with a full, constructive program of activities. There should be a persistent search for more effective methods of treatment.

## THE PROBLEM OF THE SEX OFFENDER <sup>1</sup>

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A sex offender is anyone who breaks a law relating to sex behavior. Various cultures have differed in regard to sex laws and customs. The ancient Egyptians favored incest in the royal families as did the Incas. The Greeks made a cult of homosexuality.

Our own sex laws have been greatly influenced by the ancient Jewish and early Christian codes. Today the statutes within our states vary widely. No states permit parent-child or brother-sister incest, but there is no agreement about legal sex relations between other close relatives. In homosexual relations, the maximum penalty for sodomy, defined as male intercourse per anum, varies from 60 years in North Carolina to 3 years in Delaware and Virginia(1). New York and California are 2 of the 16 states (including District of Columbia) having special sex laws. Several others are considering such legislation. We find that, throughout history, all cultures have enforced some sex laws and taboos. It is a mistake to think that primitive cultures have the fewest restrictions; often they have the most.

People vary in their opinions as to what constitutes normal or abnormal sexual behavior; hence we find various definitions of normal sex behavior. By some, normal sex behavior is thought of as ideal sex behavior; by others it is thought of as the average behavior of the entire population. Still others might approach it from the standpoint of health, defining normal sex behavior as behavior that is healthy. And finally, there is the legal definition that any sex behavior forbidden by law is abnormal sex behavior.

Much confusion in thinking results from a lack of understanding about these fundamental concepts. For example, ideal sex behavior may mean to one religious group heterosexual relations within marriage; to another religious group it may mean only

heterosexual relations for procreation within marriage. It is doubtful if physicians, including psychiatrists and biologists, would all agree as to what is healthy sex behavior. Finally, the variations in laws among the different states indicate that the legal approach is subject to the same confusion of thinking.

Despite this complexity and confusion in sexual mores, there has been some progress in our approach and understanding of this most difficult problem. Thirteen years ago I discussed this problem in a symposium held by the National Committee for Mental Hygiene at their annual luncheon in New York(2). At that time I pointed out that there was no institute in the United States for the study of sex; that there was great resistance to scientific study of the subject; and that there was apparently only one institute of this sort in the entire world. Today, we find one of our state universities supporting the Institute of Sex Research, and the work of Kinsey and his associates has already added enormously to our knowledge about sex. A few other institutions have supported animal experimentation such as that of Beach at Yale. It is heartening to detect a change in the general attitude regarding this matter.

We find that state legislatures are beginning to realize the necessity for scientific study of the problem of sex behavior, and that some of them are prepared to spend money and obtain the services of trained persons to work on this whole problem and to report to the legislature better methods for dealing with sex offenses. A year ago the California State Legislature appropriated \$100,000 as the beginning of a long-time research on this subject. If we are to make progress in the understanding of this subject and devise better ways of dealing with the problem of sex offenses, it is important to encourage scientific study of this problem and to review carefully what is known and what are likely fields for further study and investigation.

The California Legislature passed "an act to provide for scientific research into the

<sup>1</sup> The Menas S. Gregory Lecture, given at New York University, Bellevue Medical Center, College of Medicine, January 24, 1951.

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problem of sex crimes, including the causes and cure of sex deviates, and making an appropriation." The ideas of the California Legislature are fairly clear from a reading of Section 1 of this law, which is as follows:

The Department of Mental Hygiene, acting through the Superintendent of the Langley Porter Clinic, shall plan, conduct, and cause to be conducted scientific research into the causes and cures of sexual deviation, including deviations conducive to sex crimes against children, and the causes and cures of homosexuality, and into methods of identifying potential sex offenders.

It is apparent that general concern about sex crimes is focused primarily on sex crimes against small children and sex crimes of violence, with homosexuality causing a variable amount of concern.

Some legislative groups have assumed that the solution to the problem is simply to pass more sex laws and make the penalties more severe. A subcommittee of the United States Senate has made such recommendations. Most students of sex behavior do not feel that this method of dealing with the question is likely to be of any real value.

It is important to keep in mind that sex is only one aspect of the personality and that it cannot be completely isolated and studied apart from the rest of the personality. The methods of psychiatry have much to offer in studying the total personality. It is perhaps wise to discuss briefly some of the more common types of sex offenses.

#### EXHIBITIONISM

From the standpoint of arrests and convictions exhibitionism is number 1 in frequency. The vast majority of exhibitionists are relatively harmless offenders; mostly they are public nuisances and sources of embarrassments, but there is a frequent and repetitious character that is worth noting. Exhibitionists are usually men, although now and then a rare case of female exhibitionism is reported.

The biologic basis for exhibitionism appears to be the tendency of male animals to strut and show off before the females, although in the higher apes there has been reported some exhibitionism of the genitals on the part of the female as an invitation to the male to carry out sexual intercourse.

In human beings exhibitionism can be regarded as a normal part of sexual foreplay. In exhibitionism, in some way or other, the emphasis is displaced, and sexual exposure becomes of maximum or sole importance to the individual. It is an obsessive-compulsive type of neurotic behavior for which psychoanalysis has offered specific interpretations. The urge to expose is closely associated with voyeurism—the wish to look as well as to be looked at—and tends to appear repeatedly in the same individual. The risk and danger of arrest seem to add spice to the desire to see and to be seen.

Exhibitionism and voyeurism are not dangerous unless they occur along with more serious types of sex behavior. It should be stated explicitly that persons convicted of serious sex crimes do not commonly begin with voyeurism and exhibitionism and work up to crimes of violence and murder. Sex offenders have the same tendency as do other criminals to stick to similar types of offense. It is well known that burglars seldom become forgers, and vice versa. Such criminals stick to a particular type of criminal behavior; the same is largely true of sex offenders.

#### HOMOSEXUALITY

The problem of homosexuality is extremely complex, and opinions vary as to its importance in antisocial sex behavior. American culture has given little attention to female homosexuality and has been overconcerned with male homosexual relations. There are many variations in homosexual behavior. One group are normally heterosexual but resort to homosexual behavior when a partner of the opposite sex is not available. Another group of individuals are ambisexual and regularly indulge in both hetero- and homosexual relations and do not seek one form of sex behavior to the exclusion of the other. A third group desire only partners of their own sex. They can be divided into two groups. One group, the smaller, regard themselves as females and often ask for castrative operations. I have records of 2 males, both of whom have asked for complete castration, including amputation of the penis, construction of an artificial va-

gina, and the administration of female sex hormones. I also have 2 cases of females who have requested a panhysterectomy and the amputation of their breasts, together with the giving of male sex hormones, in the hope that in some way the clitoris may finally develop into a penis. Male homosexuals of this type are called "queens" and seem to differ markedly from the main group of homosexuals who are more nearly like the average man. Here we have an extremely interesting field for further investigation. We are therefore setting up a careful plan to study a group of these so-called "queens," carrying out the studies of body build as outlined by Kretschmer and Sheldon (3), making a thorough endocrine study, carrying out a thorough psychiatric history and a mental examination, including the use of the various psychologic tests such as Rorschach, Thematic Apperception Test, Minnesota Multiphasic Personality Inventory, and several others. A physical or anatomic difference in this particular group still remains possible, and study either to prove or disprove this point should be made.

Viewpoints as to the causes of homosexuality vary, with resulting differences in opinion as to the chances for successful treatment. Freud felt that homosexuality is a disorder in psychosexual development. In each case of homosexuality, at any point, the development could have taken a different turn if the situation had been different. However, because of many conditioning experiences, the condition of homosexuality became fixed and the chances for cure small. During a recent visit I made at the University of Indiana, Professor Kinsey gave me a letter that Freud had written to an American mother, with permission to use it as I saw fit. This letter has been reproduced, in Freud's own handwriting, in a recent issue of the *AMERICAN JOURNAL OF PSYCHIATRY*. It appears to me worth while to present it at this time as I think it gives an excellent summary of Freud's ideas and is a most human and interesting document.

#### FREUD LETTER

April 9, 1935

DEAR MRS. ———

I gather from your letter that your son is a homosexual. I am most impressed by the fact that you

do not mention this term yourself in your information about him. May I question you, why you avoid it? Homosexuality is assuredly no advantage but it is nothing to be ashamed of, no vice, no degradation, it cannot be classified as an illness; we consider it to be a variation of the sexual function produced by a certain arrest of sexual development. Many highly respectable individuals of ancient and modern times have been homosexuals, several of the greatest men among them. (Plato, Michelangelo, Leonardo da Vinci, etc.) It is a great injustice to persecute homosexuality as a crime and a cruelty too. If you do not believe me, read the books of Havelock Ellis.

By asking me if I can help, you mean, I suppose, if I can abolish homosexuality and make normal heterosexuality take its place. The answer is, in a general way, we cannot promise to achieve it. In a certain number of cases we succeed in developing the blighted germs of heterosexual tendencies which are present in every homosexual, in the majority of cases it is no more possible. It is a question of the quality and the age of the individual. The result of treatment cannot be predicted.

What analysis can do for your son runs in a different line. If he is unhappy, neurotic, torn by conflicts, inhibited in his social life, analysis may bring him harmony, peace of mind, full efficiency, whether he remains a homosexual or gets changed. If you make up your mind he should have analysis with me—I don't expect you will, he has to come over to Vienna. I have no intention of leaving here. However, don't neglect to give me your answer.

Sincerely yours with kind wishes,

FREUD

P. S. I did not find it difficult to read your handwriting. Hope you will not find my writing and my English a harder task.

The other viewpoint is that homosexuality is a deeply fixed pattern, either inherited or determined very early in life by physiologic factors. Midway is the opinion that homosexuality is caused by combined psychologic and physiologic factors.

Ford and Beach believe that sexual inversion reflects the essentially bisexual character of man's mammalian inheritance. In their book, *Patterns of Sexual Behavior* (4), they report many observations on homosexual behavior in animals. It is the only sexual expression in a few members of each species. It is common in male and very uncommon in female animals—facts that suggest a basic inherited potentiality for homosexual behavior. Kallmann's (5) careful study of homosexuality in identical twins, reported recently at the New York Academy of Medicine, also

favors the genetic determination of homosexuality. Beach disagrees with the idea that early conditioning and social pressures largely account for homosexual expressions. He finds that the large majority of subhuman mammals, regardless of conditioning, usually prefer heterosexual to homosexual relations, if given their choice.

Anatomic studies by Sheldon have shown no primary physical feminine characteristics in known male homosexuals, but these men do have feminine mannerisms and expressions in facial and body movements.

Some workers have observed an imbalance in the androgen-estrogen ratio(6) in homosexuals, and on this premise have assumed an endocrine basis for homosexuality. All sorts of anatomic and physiologic changes have been reported and considered as causal by various observers. These reports include such different findings as abnormalities of the central nervous system, disordered basal metabolism, hypoglycemic states, etc.(7). So far all these ideas are still unproven theories. It seems important to determine whether or not some of these ideas are correct.

Accordingly I have arranged with the steroid laboratory of the University of California School of Medicine at Los Angeles, to carry out a study of certain steroids and anti-enzymes in the urine and blood of sexual deviates in 2 of the state hospitals near Los Angeles. These studies should yield us specific information concerning the possible relationship of these steroids and anti-enzymes to homosexuality. This research has been under way for less than 6 months and no material is yet available for publication.

It is of interest that some of our officials in Washington have the naive idea that excluding homosexuals from government service will do away with the problem of foreign spies securing secret information. Homosexuals are no more open to seduction than are heterosexuals, and history is full of accounts of beautiful female spies who have secured important secrets from other governments by their heterosexual seductions. We find that some rulers in the past have tried to make their positions safe by surrounding themselves with eunuchs, but even this device did not prevent the rulers from betrayal at times. In view of the high incidence of

some type of homosexual indulgence in American males as reported by Kinsey, there would seem to be little or no chance of keeping our government offices free of overt homosexuals. If one wishes to add the group of latent homosexuals, it is obvious that we are witnessing some of the wish-fulfillment thinking, disassociated from reality, that we see in our schizophrenic patients.

An amusing article in Science News Letter for July 1, 1950, points out that, if we apply Kinsey's figures upon the incidence of homosexuality to members of Congress and male Civil Service employees, we would assume that 192 white male members of Congress and 525,279 male Civil Service employees are poor security risks for this reason. The facts are that the majority of homosexuals are no particular menace to society. A small number of them, like those who are heterosexual, will attempt to seduce or sexually assault others or try to initiate sex relations with small children. They are undesirable persons in the community.

Society is entitled to protect itself against such individuals whether they are homosexual or heterosexual. Homosexual seduction of children is just as important as heterosexual seduction and perhaps even more serious in its effects. Society must and should guard against it rigidly. Certain dangerous acts do occur. Some overt homosexuals, in their hunt for partners, may be attracted to latent ones who greatly fear any homosexual expression(8). Relations of this kind often end in atrocities that may be against children and youths.

#### FETISHISM

Ordinarily the perversion of fetishism is harmless. There are occasions, however, where it appears to be the beginning of a more serious type of sex abnormality, in which murder and mutilation may occur.

It is not well understood in what situations fantasy passes over into action. In the well known Chicago case, Heirens at age 9 used female underclothing as a fetish(9). Later, the act of *breaking through a window* to obtain feminine garments excited him greatly and often resulted in orgasm. By the age of 17 he had committed 25 burglaries, 1 rob-

bery, 1 assault to murder, and 3 murders, including a kidnapping. During these crimes the least noise might set him off; and he might kill. To Eissler(10) it is incredible that parents, teachers, and priests did not suspect the many rich gifts, clearly beyond the youth's means, and that they ignored other signs. Heirens' wall daubing, "For heaven's sake catch me before I kill more, I cannot control myself," Eissler considers a genuine plea for help.

#### SEX OFFENSES AGAINST YOUNG CHILDREN

Sex offenders against young children are a very serious social problem. In a very few cases the sexual attack on the child may be based on some superstition, as for example, the idea that intercourse with a virgin, preferably a child under the age of 7, cures venereal disease(11). In the majority of cases, however, the men are over 40 years of age. A large percentage of them are impotent, either relatively or absolutely. In many of these cases it appears that the individual feels inadequate to approach a full-grown woman, but is able to get more or less vicarious sex pleasure through some kind of sex play with the small child. In homosexual acts with small children this may not be the case. In many of the older men involved in sex offenses toward little girls, it appears that the behavior is the evidence of an early senile or organic brain change, in which the ordinary controls and inhibitions are becoming lost. A great many of these men have had unblemished reputations so that these offenses could not have been anticipated.

The harmful effects of such sexual relations to the child victim have been at times exaggerated. Bender and Blau's(12) excellent study at Bellevue Hospital of 16 children, aged 5 to 12, who had sex relations with adults showed less fear and guilt in the children than expected. The immediate harmful effect was mainly interference with the child's education and other juvenile interests. The child's greater-than-usual preoccupation with sex hindered school advancement. For later effects these writers cite Rasmussen's Danish study of 54 women who had been child victims of convicted sex offenders. Only 8 had serious abnormalities in adult

life and in these the early sexual trauma was not judged an important factor.

Incest, more common than generally thought, is most frequent between father and daughter and between brother and sister. It is extremely rare between mother and son. Many reports stress such socio-economic factors as very large families and bad living quarters as important causes.

#### THE VICTIM

A study of sex crimes against children can achieve no adequate, complete understanding without a thorough psychiatric study of the child and the child's family, as well as a full study of the offender. My own experience with these cases at Boston Psychopathic Hospital and at Bellevue Hospital, together with Dr. Bender's work, leads me to emphasize two ideas: first, that often the most harmful effect of sex offenses to the child is the attitude of the family and associates; second, the question whether the crime is 100% the fault of the offender or whether in a considerable number of cases the child may have contributed more or less to the situation and have some degree of responsibility for what occurs. Bender noted that several of the 16 children in her study did not resist, but even invited or initiated sex relations. In two studies(13) of statutory rape, the sexually delinquent minor girl was a more important psychiatric problem than the nonpsychotic male offender.

It is important that a number of cases from which to draw statistical conclusions about the effect of the sex experience on the child, and also the degree to which the child contributed to the act, be considered in a study.

In order to answer these questions, we are setting up the usual team of psychiatrist, psychologist, and psychiatric social worker in San Francisco's new Youth Guidance Center, which also houses the Juvenile Court. The officials of this Juvenile Court, the Probation Department, and all those connected with this Youth Guidance Center have been most friendly and cooperative, and have indicated their desire to work with us and help solve these problems. We hope eventually to have some worthwhile statistics on this subject.

## MURDER

Observers estimate that genuine sex murder is rare, perhaps 25 to 100 cases a year in the whole country (14). In a few cases, as noted, homosexual panic may lead to a sudden homicidal assault, or assaults on children by adults may end in murder. Psychiatrists have noted that some passive, effeminate boys may try to assert themselves by criminally aggressive behavior. MacDonald (15) warns that superficial investigation often intensifies these impulses and may lead to murder. This trigger-quick aggressiveness was found in a study of 14 male murderers of girls or women (16). Cushing (17) points out that a sex case involving forceful rape or death after sexual relations is not, *per se*, a sexual offense, but primarily a crime of forceful assault or of murder.

## MISCELLANY

Other sex offenses include sex relations with a corpse and bestiality. Kinsey's figures (18) show that 8% of all males and more than half of the boys raised on farms have some type of sexual contact with animals. Frequencies vary from once or twice in a lifetime to several times a week for some years. The incidence is very high in some western areas. Legal codes usually rate these acts as sodomy; the penalties vary. In California the maximum penalty is 20 years. This overvaluation of animals may have some connection with the fanaticism of antivivisection. It is possible that the same forces that cause antivivisectionists to attempt to stop medical progress and allow diseased children to die, rather than subject a few animals to laboratory investigation, likewise motivate the high penalties for bestiality.

Lack of time prevents a discussion of the types of heterosexual relations forbidden in many states, even if the couple is married and both are willing partners to the act. Such behavior is without effect on the rest of society and is even recommended as a part of the foreplay in most of the standard books regarding sex relations in marriage.

## DIAGNOSTIC TESTS

A small literature is accumulating on diagnostic tests helpful in differentiating sexual

deviation. Several studies (19) have indicated that content analysis of Rorschach tests has value. In male homosexuality, derealization and dehumanization, with confusion as to sex identification, appear; also human movement and a high percent of sexual content responses, along with responses concerning feminine apparel, behavior, and attributes. A selective vocabulary test is claimed to score homosexuals significantly (20).

Guttmacher (21) reports Rorschach studies, as yet unpublished, that delineate a passive approach in exhibitionists: color predominates over movement, and there are signs of a vague, uncreative personality, with some depersonalization. In the rapist there is more control, surface restraint, with many movement responses and inner compulsiveness. The man is unsocial and allows tension to accumulate to the point of explosiveness. Fantasies of violent penetration and forced intercourse recur in the test battery.

Some workers advocate the electroencephalograph as a diagnostic aid. Significant correlation appeared between unspecific abnormal EEGs and the capacity to commit violent, apparently motiveless acts, although EEGs were normal in 3 cases of sex murder (22). An epileptic equivalent is suspected in crimes of extreme cruelty committed late in life (23). In a series of thefts of compulsive nature committed by homosexuals the EEG was thought to locate toxic-organic factors (24). However, Gibbs (25) and co-workers found that subclinical forms of epilepsy and organic brain disorder did not significantly contribute to crime in sane patients. No correlation appeared between abnormal EEGs and sexual behavior disorders in a series of children's cases (26).

Gioscia (27) claims that the absence of the gag reflex "in the absence of an organic lesion, hysteria, or paralysis, is a definite indication that fellatio has been practiced." In his figures, however, he reports a negative gag reflex in 36% of cases of drug addiction and 18% of cases of schizophrenia.

## TREATMENT

All treatment must start with a thorough psychiatric study of the offender and, in many cases, of the victim. Sexual psychopathy is but one aspect of the whole person-

ality and any type of treatment must take into account the total personality. At the present time it must be admitted that the results of treatment are, on the whole, unsatisfactory. There is great need of developing better and simpler techniques. If mere detention is society's main protection against the offender, then imprisonment is more efficient than hospitalization, as some criminologists have noted.

Attempts should be made to determine exactly what cases require institutionalization. Certain cases of fetishism, some of the aggressive, seductive homosexuals, and sex offenders against children who show either the extreme compulsive, repetitive type of behavior or early signs of organic brain disease should be segregated for the protection of society.

If one is interested in trying to help the offender to establish a more normal sex life, it is obvious that the ordinary imprisonment will not serve the purpose; particularly is this true in regard to homosexuality. Segregating a male homosexual for months or years in a prison where he will see only other men and where he will be often isolated with a group of other homosexuals can hardly result in anything but reinforcement of the homosexual tendencies.

In general, one may divide the methods of treatment into psychologic methods and physiologic methods. To those who feel that sex deviations are brought about according to Freud's ideas, an orthodox psychoanalysis may seem the best and, in fact, the only possible way of treating the patient successfully. Granting the most extreme claims of any of the Freudians, even assuming that they could cure every patient and increasing the number of psychoanalysts tenfold, one would find that, even if the psychoanalysts devoted themselves exclusively to these problems, the cures would be so few in number that the whole problem would be relatively unchanged.

Various types of short techniques and group psychotherapy have been tried by many with some varying results. Bromberg feels that he has been able to attain certain results with psychodrama where other techniques have failed. One might sum it up by saying that all the standard techniques of

psychotherapy have been used in the treatment of sex offenders without a very impressive result. We have a second group who feel that the approach should be primarily physiologic and who have reported results of treatment by hormonal injections, castration, convulsive shock therapy, and brain operations such as lobotomy. A variable degree of success is claimed by those reporting these types of treatment. It would seem somewhat easier to check the value or lack of value of these physical methods of therapy, and it is suggested that a number of pieces of worthwhile research might be carried out in this field. Since in California certain courts have agreed to place a sex offender on probation if he submits to castration, it seems to me that we have an excellent opportunity here to carry out a number of basic studies both psychologic and physiologic. If we can obtain a number of these prisoners prior to castration and carry out a most thorough and intensive psychiatric study, including the use of standard tests such as the Rorschach and Thematic Apperception Tests, and if we also work with the endocrinologist who can carry out a most thorough endocrine study with hormone assays, we can then repeat all of these studies after castration and acquire a large number of data bearing on this whole subject.

Another point of special interest to the psychiatrist is to try to determine why one individual indulges in sex fantasies but does not carry them out in actual behavior, whereas in another individual the fantasies break through into overt acts. This may be closely linked up with the fact that the normal individual has a rich fantasy life, but never confuses fantasies with reality; whereas in certain mental disorders, particularly in schizophrenia, one often sees the fantasies breaking through with all the forces of reality, and the patient living out his fantasy life as if it were real. Determining what factors cause the difference between fantasy and overt behavior might be of great value in helping to solve this problem.

#### CONCLUSIONS

From my brief survey it is clear that the whole problem of the sex offender is a most complicated one and involves many fields.

All attempts at better diagnosis, treatment, and prevention will require many years of cooperative research by scientists from many different fields. There is no one over-all way of attacking the problem. Rather one must attack individual facets. It is possible to pose a series of specific questions to which there is reason to believe we can get specific answers. By setting up more and more of these researches, which will attack limited phases of the problem, and by securing answers to such phases, we can hope to be able eventually to throw these answers together and by combining them obtain a solution to this problem.

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## OBJECTIVE METHODS OF EVALUATING PROCESS AND OUTCOME IN PSYCHOTHERAPY<sup>1</sup>

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Can we find a psychiatric equivalent of the autopsy?

Pathological study of tissue from surgical operations and post mortems has greatly improved understanding of the nature of disease and the effects of therapy, and has raised standards of medical practice. Psychotherapy at present is conducted in a great variety of ways by different practitioners, who base their procedures on a diversity of theories. In spite of the marked deviations in techniques used, psychotherapists almost universally claim that they help patients. Frequently they claim to benefit a majority of those who consult them. Though the task is difficult, it is extremely desirable that we find techniques for making objective, comparative analyses of process and outcome of these diverse psychotherapeutic procedures, so that we may ultimately discover the real truth about these strangely similar claims about the effectiveness of conflicting practices.

Probably the most complex problem that must be faced in developing comparative measures of outcome is the fact that a divergent multiplicity of criteria for successful therapy exists. There are therapists who accept simple disappearance of symptoms or signs as evidence of effective treatment. However, this is a notoriously treacherous criterion. In hysteria, for instance, the end of one symptom frequently is just a signal for the beginning of another manifestation of pathology. And for all psychoneuroses—not only hysteria—the treatment of symptoms and signs alone without attention to underlying etiology is as unsatisfactory as it is in general medicine.

Other psychotherapists use as a criterion of success social adjustment on the job, in the community, or in the family. The purpose of much vocational counseling is considered accomplished when adequate job adjustment has been made, even though psy-

chopathology may continue. In child guidance clinics family problems are frequently high-lighted, so that the therapist is satisfied when the parents and the child have established adequate relationships.

In other cases, the psychotherapist may devote his efforts to altering the adjustment of the patient until the patient's personal satisfaction is high. When he comes thoroughly to accept himself, psychotherapy is considered to be successful, regardless of the continuation of symptomatology, objective signs, or inadequate social adjustment.

Finally, a common criterion appears to be the psychotherapist's own satisfaction with the adjustment of the patient in terms of his particular theory of personality. The decision as to when psychotherapy shall end is made by the therapist in terms of his personal assumptions as to what sort of psychodynamic situation constitutes adequate adjustment.

Because there are great difficulties in resolving these conflicts of criteria, it is important to subject the matter to intensive research. Such investigations may indicate that these criteria are highly correlated—for instance, that social facility, family adjustment, and inner satisfaction ordinarily develop concomitantly in successful psychotherapy. It may be possible also to show under what circumstances and in what personality types these criteria do not converge. Also it may be feasible by research to establish ways to select among the various possible goals of therapy. As a scientist the psychotherapist may say that his techniques enable him to achieve one or another of these ends in a given situation, but the decision as to which of the goals is desirable should be left to the patient, to representatives of society, or to whoever is the proper one to make such value judgments, which is the role of citizens and not of experts.

It is to be expected that the first efforts at an overt, objective, quantitative approach to any intricate matter like the evaluation of

<sup>1</sup> Read at the 107th annual meeting of The American Psychiatric Association, Cincinnati, Ohio, May 7-11, 1951.

process and outcome of various forms of psychotherapy would necessarily seem oversimplified and naive. This is true of the first investigations of any complicated phenomenon by any science. The relevant variables need to be discovered and isolated, methods for measuring them need to be devised, and the reliability and validity of those measuring instruments need to be improved. It is also important to develop methods of assuring that the problem is not oversimplified so that relevant variables are forgotten. It is the nature of the analytic processes of science that at first relevant variables have to be slighted while attention is concentrated on understanding others. The hope always is, of course, that eventually all variables can be studied simultaneously. Regardless of early shortcomings, however, the only way to advance knowledge is to do the best possible at any given moment and to improve the techniques in later investigations. Discussed below are some new methods for making such studies that have been recently employed at the University of Chicago(1), all of which are applicable to any sort of psychotherapy.

#### RATING OF PSYCHOTHERAPEUTIC PROTOCOLS

One procedure involves the use of transcribed protocols from electrical recordings of psychotherapy. It is possible to study either every interview of the therapeutic course, or randomly chosen interviews, or equally spaced interviews like the first, tenth, twentieth, thirtieth, fortieth, etc. Various characteristics of these interviews may be described or rated by one or more trained raters who do not know the order in which the interviews occurred, since any statements that would reveal this order are disguised before being presented to the raters. An endless number of aspects of the protocol may be studied in this way and quite a few investigations of this type have already been carried out. Some deal with the interview as a whole. Others are concerned with individual "therapeutic units" in the interview or individual statements, sentences, or even words. In general it has been found that raters carrying out these tasks independently agree highly among themselves. Coefficients

of reliability commonly range from the middle .70's to .90 or above.

The following are some examples of investigations of this sort:

Seeman(2) has studied negative and positive attitudes toward the self that are expressed in psychotherapeutic interviews. He has discovered that, in cases considered by the therapist to be successful, the number of negative statements of attitude toward self diminishes and positive statements increase throughout the course of treatment. He found also that, as the therapy progresses, positive attitudes are expressed more in the present tense and less in the past while the reverse is true of negative attitudes. Moreover, the raters agreed, on the basis of their independent interpretations of patients' statements, that there is a decrease in exposition of problems and an increase in insightful solutions of them as successful therapy proceeds.

Using a similar method, Sheerer(3) has shown that acceptance of self and of others increases throughout the course of treatments considered by the therapist to be successful; that is, as the subject comes to accept himself he also becomes more accepting of others. Using a similar method, Haigh(4) has shown a decrease in defensiveness throughout successful therapy, and Hoffman(5), having judges rate bits of behavior reported by the patient in his therapeutic interviews, found that as successful therapy continues the patient becomes more mature. Raskin(6), comparing a number of these different ratings of changes during psychotherapy on the same cases, found that "desirable" changes (that is, increase in positive attitudes toward the self in the present; increase in insight; increase in acceptance of self and others; decrease in defensiveness; and increase in maturity) correlated highly one with another, with Pearson correlation coefficients from .34 to .86.

Postulating that one indication of successful therapy is that the client relies more and more upon the evidence of his own senses in establishing a basis for behavior and less and less upon values and attitudes set by others without reinforcement by his own sensory experience, Raskin(7) conducted another study to see whether in therapy a

client would shift his locus of evaluation from relative emphasis on others as a source of evaluation to relative emphasis upon himself as evaluator of experience and behavior. He found, on the basis of ratings applied to interviews in 10 cases, that throughout the course of therapy a significant shift took place in the direction of greater emphasis on the self as the evaluator of experience.

Grummon(8) undertook an intensive study of grammatical and psychogrammatical language categories employed in psychotherapy. After distinguishing approximately 300 linguistic categories, he studied their relative frequencies of use early and late in the therapy of 4 clients showing different degrees of improvement as judged by tests and counselor ratings. He found that certain linguistic categories appeared to be promising in their ability to differentiate successful from unsuccessful therapy. These were: (a) active vocabulary size, which increased from early to late successful therapy; (b) clause length and number of subordinate clauses both showed increase; and (c) adjective-verb ratio showed a change in the direction of increased proportion of adjectives. Grummon related these findings to psychological properties of language use and concluded that they have significance in evaluating psychodynamic changes occurring in psychotherapy.

Much of this work has methodological similarity to that carried on by Dollard and Mowrer(9) who determined the change in balance between discomfort and relief statements (the Discomfort-Relief Quotient) during the course of social casework.

#### CONTROLS

In order to make a thoroughly scientific study of the process and outcome of psychotherapy it is important to use controls. We cannot assume that just because a patient improves, by one or another criterion, during a period of therapy, the change is necessarily the result of the therapy. This assumption is no more valid for psychotherapy than it would be for a treatment for the common cold. We do not know the natural history of the psychoneuroses well enough to be sure that they are not self-improving or self-limited. To evaluate the outcome of any

therapy it is therefore essential to study a group of patients who have not had psychotherapy and compare them with those who have, or to compare those treated by one system with similar patients treated by another system. The basic research design for any investigation of this sort involves examination or testing of a treated and an untreated group before therapy, perhaps during therapy, at the end of therapy, and over a follow-up period, preferably of relatively long duration. Such research is extremely expensive of time and money and difficult to carry out, but until such work is done much of our discussion of psychotherapy will be conjecture rather than science.

A number of control techniques have been developed that can be used in the clinic. One of these is the method of matched controls—that is, using an experimental group and a control group each with the same number of individuals, selecting several variables like age, sex, psychiatric status at the beginning of therapy, socio-economic level, etc., and having each individual in the experimental group paired exactly in terms of these important variables with an individual in the control group. There are various difficulties with this method. For one thing, it is extremely hard to find individuals who match exactly with the treated patients if more than 3 or 4 variables are considered. With each added variable the difficulty increases geometrically, so that it is nearly impossible to match a group on 6 or more variables. Nevertheless, there are probably many variables on which matching would be important, so a single study cannot control them all. Another perplexing issue is that we do not know what variables are relevant and perhaps no 2 people are sufficiently alike to make matching of any significance.

There are certain ways in which the matching of controls can be made easier. One is to use as large intervals as possible in measuring each variable. For example, measure age in decades or simply by periods of life—childhood, adolescence, early adulthood, and late adulthood. Another simplification is to arrange the control group with the same number of individuals in each category for each variable as there are in the treated group, but not requiring that each individual

be matched exactly. For example, a 29-year-old colored male and a 34-year-old white female might be matched by a 29-year-old white male and a 34-year-old colored female. This would result in having the same number of 29- and 34-year-old people in both groups, the same number of whites and Negroes, and the same number of males and females. The shortcoming of this procedure lies in the fact that intensive individual case studies of a treated and a similar untreated person cannot be made, but statistical comparisons of the 2 groups are possible.

The analysis of variance is a relatively new statistical method that is much easier to employ than the method of matched controls. Again it does not make possible the comparison of similar treated and untreated individuals, but otherwise it has many advantages. The details of this method cannot be described here but are readily available in standard books on psychological statistics (e.g. 10). Essentially it is a method that can analyze the causes for difference between the treated and the untreated groups, determining how much of this is the result of the therapy itself and how much is explainable by other factors like differences in therapists, psychotherapeutic approaches, age, sex, socio-economic status, race, etc.

A third control method is using the individual as his own control. This involves a comparison of a period of the life of a patient when he is not treated with a period when he is. This can be done by first testing him, then putting him on the waiting list for 6 months, after which he is tested again, given therapy for 6 months, then tested again. If there is a greater change in the second 6 months than in the first, it is likely to be due to the therapy unless of course other major events have occurred in his life during that time. This is a particularly valuable control method when it is used together with the matched control method or analysis of variance so that one patient or group of patients is waiting for therapy while the other is being treated and then the reverse situation exists. Intensive researches using all 3 of these control techniques are under way at the University of Chicago.

### Q-TECHNIQUE

The Q-technique of Stephenson(11) offers a method for quantitatively studying changes in many variables at once. An individual, either the patient or the therapist or both, is asked to distribute a number of cards with statements about his attitudes, his behavior, or any other aspect of his personality. Each is put into one of a number of piles according to how applicable the sorter believes the statement is to the phenomenon under consideration, from one pile for statements that are most applicable to another for those that are least applicable. He may sort these cards to describe any aspect of the phenomenon of psychotherapy—for example, his own present characteristics; those that he hopes finally to attain; his feelings toward the therapist; or the therapist's feelings toward the patient. This can be done repeatedly at intervals before, during, and after psychotherapy, in order to study the change of clusters of these characteristics. Thus it might be found, for example, that as conscious hostility to the mother increases, hostilities toward others diminish, feelings of defensiveness toward the therapist decrease, and ability to get along socially with members of one's own sex increases. A rich, quantitative study of the interplay of all these conceivably interrelated variables throughout a single psychotherapeutic course is now possible using the Q-technique. Factor analyses can also be applied to the data.

Employing Q-technique, Rogers and his colleagues(12) have shown that, in 13 cases considered to be relatively "successful" by the therapist, the individual's concept of his self and his ideal for himself were more discrepant before therapy than they were afterward. There were no exceptions. In all these cases the concept of the self changed more significantly throughout therapy than the ideal did. In all but 2 of these cases the direction of alteration of the concept of self was toward the pretherapy ideal. All of these changes were quantitatively measured and were found to be significant beyond the 1% level.

In a different sort of Q-technique study, Fiedler(13) has demonstrated that the therapeutic relationships established by experts of

international reputation in 3 different schools of psychotherapy are more similar to each other than they are to the relationships established by nonexperts in their own school. Fiedler was able to make a factor analytic study of the important characteristics found in all these psychotherapeutic relationships, discovering them to be: (a) rapport and ability to communicate; (b) feeling of security; and (c) proper emotional distance between therapist and patient.

Fiedler (14) also has made a psychotherapeutic study of countertransference and diagnostic ability using Q-technique methods. Seventy-six cards were distributed by a number of patients, as a means of describing themselves at a certain point in their psychotherapeutic course (Sort number 1). Also their therapists made 3 similar sortings of cards, one (Sort number 2) predicting the patient's self-description; one (Sort number 3) describing the therapist as he sees himself; and the other (Sort number 4) describing the therapist's ideal for himself. Fiedler then showed that a comparison of the accuracy of Sorts 1 and 3 showed the real similarity between clinician and patient. Correlation of 2 and 3 showed the similarity which the therapist assumes exists between himself and the patient. Correlation of 1 and 4 showed the real similarity of the patient to the therapist's ideal for himself. And correlation of 2 and 4 showed the assumed similarity of the patient to the therapist's ideal.

Having collected such data from 22 psychotherapists and their patients, Fiedler made the following interpretations: When the clinician overestimates the similarity of the patient to himself, that may mean that the therapist wants the patient to be more like himself than the patient really happens to be. This is evidence of a generally accepting, benign, or empathic attitude. The underestimation of similarity, on the other hand, would indicate a generally negative attitude.

Moreover, if the therapist assumes the patient to be more like his ideal than the patient's self-sort indicates, it could be concluded that he unconsciously perceives the patient as being better adjusted than the patient really is and consequently he expects more of the patient than the patient is capable of giving. This might be called a de-

manding attitude on the part of the therapist. On the other hand, if he sees the patient as much less like his ideal, that would suggest that the therapist considers the patient to be a relatively helpless individual, one to whom he should show warmth and support since he by contrast is more healthy and secure. Thus it is possible to measure the amount of demandingness or supportiveness in the countertransference relationship.

Having made these assumptions, Fiedler then had supervisors rate his therapists on their competence by the supervisors' standards. He found that the good therapists showed significantly more positive than negative feelings toward their patients; that is, they ordinarily assumed the patients to be more like themselves than they actually were. Also the good therapists gave more of themselves to the patient than they demanded from their patients in return. These two statements were found to be significant beyond the 1% and beyond the 2% level, respectively.

Another type of research using Q-technique, carried out by Heine (15), led to the following conclusions: that patients' subjective descriptions of changes resulting from psychotherapy conducted by 3 different methods—the psychoanalytic, the nondirective, and the Adlerian—did not differ from one another in a significant fashion that could be attributed to their having been treated by therapists of different schools. However, in explaining the changes they had experienced, the patients of therapists of these different schools tended to refer to the factors regarded by authorities of each school as crucial in bringing about the results.

These investigations illustrate the wide range of studies on psychotherapy that are now possible with Stephenson's technique.

#### SUMMARY

Three new quantitative methods for studying process and outcome in psychotherapy have been discussed: first, the rating of protocols from electrical transcription of cases; second, the utilization of various control methods; and third, the employment of the Q-technique with therapists and patients. A number of illustrations of these objective methods have been presented and some of

the first results from using these methods have been recounted. It is clear that these developments are in their infancy and that there is a great deal more to be done before highly significant results can be obtained. Nevertheless, there is real promise for understanding the nature of the psychotherapeutic process in a precise way if these new methods are imaginatively employed.

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## A TEN-YEAR FOLLOW-UP STUDY OF ELECTROCOMA THERAPY<sup>1</sup>

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### I. INTRODUCTION

In 1942, one of us (JLF)(1) reported the results of a series of private psychotic patients treated with electrocoma therapy. The term electrocoma was proposed at that time to replace the less accurate and more disturbing phrase, "electroshock," originally introduced by Cerletti and Bini(2). "Electrocoma" was more descriptive and psychologically more desirable, since it avoided the unpleasant connotation of "shock." We believe that this term and its abbreviation, ECT, should be more widely used.

The results were favorable, confirming the excellent reports already published(3). Yet, it was felt that a longer interval of time would permit a more sound evaluation(4). Several significant papers have appeared in the literature, such as those by Rickles(5), Morrow and King(6), Hinko and Lipschutz(7), Fishbein(8), Huston and Locher(9), and Gralnick(10). We had published a 6-to-7-year follow-up(11) and we extended the study to report the present status of patients treated 9 to 10 years ago.

Our material consists exclusively of private patients, psychotics, treated in private sanatoria. The ages range from 17 to 70. The diagnostic categories are manic-depressives, depressed state—50; manics—3; schizo-depressives—4; involutional melancholias—11; schizophrenics—29; and other types—3. Many of these patients have been followed closely over a period of 9 to 10 years. Some have been treated for recurrent attacks. In other instances, we have obtained information about the present status through correspondence with the referring physician, the family, or the patient himself.

A statistical study such as the present one is beset with difficulties: the number of patients is small, the present status in some

instances a matter of estimate, and an accurate control series of similar patients not given ECT unavailable. We are therefore presenting this material as a record of observation and experience, supplementing and comparing the data in the original group of 100 patients with the results obtained in more recent years from a patient list of over 2,000.

### II. FOLLOW-UP RESULTS OF 100 PATIENTS TREATED 9 TO 10 YEARS AGO

The immediate result of treatment was excellent and conforms in relief furnished and hospital period reduced to those well known in the literature(12-15). There were 16 failures, patients whose response was so temporary and relapses so prompt that only slight symptomatic improvement was obtained. Of this group, 12 were schizophrenics, several belonging to the hebephrenic category. Others were chronic paranoid individuals. A poor prognosis had been given to the families. Yet, there were several patients with relatively acute schizophrenia who also failed to respond and 2 individuals in the depressed group who did not do well.

As regards the follow-up picture of the 29 schizophrenic patients, 9 have shown a relatively sustained improvement, 8 were recovered for periods of time and then developed recurrences that required subsequent treatment, 12 did not do well from the very outset. This unfavorable showing was due in part to the type of patients referred to us for treatment when the method was relatively new. Another cause was the limited number of treatments then administered. Our more recent experience, employing a larger number of treatments, 20 or more, has yielded a far better percentage of sustained as well as initial recoveries. The prognosis in the hebephrenic types and in chronic schizophrenics generally is still unfavorable.

Of greater significance is the group of patients in whom depression predominates. They include patients who could be diag-

<sup>1</sup> Read at the 107th annual meeting of The American Psychiatric Association, Cincinnati, Ohio, May 7-11, 1951.

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nosed as manic-depressive, depressed state, involuntal melancholia, and schizo-depression. Altogether there were 65 patients in these categories. Over 90% showed excellent initial response; 50% developed recurrences during the 10-year period. Some had but one episode, others several attacks of depression. Given subsequent treatment, 18 of these patients are relatively well, functioning on a successful level. Fourteen can be listed only as socially recovered. Thirty-one of the entire series of depressed patients have maintained their recovery. Of these, 27 are listed as enjoying average good health and 4 are but moderately improved. During each succeeding year of study, additional recurrences developed among those who were previously well.

There have been 7 deaths among these 65 depressed patients, the first having taken place a year after treatment and the others scattered through the 10-year period.

We treated 3 manics, who recovered; 2 remained well and 1 showed a recurrence that responded to treatment. Three patients were classified as other types of psychoses. One was a complete failure; 2 improved but showed recurrences, with further treatment necessary.

### III. THE PROBLEM OF RECURRENCES

#### A. The Temporal Influence on Recurrences

As may be expected, the longer the study, the higher the percentage of recurrences. Since our report 3 years ago, 7 patients who had been well subsequently developed other attacks of mental illness. This tendency to recurrence is a well-known feature of manic-depressive psychosis and has been observed also in schizophrenia.

#### B. The Time Relationship of Recurrences

The question has been raised whether ECT accelerates or retards recurrences of psychotic illness. Our figures, in line with those of other writers (16-19), show that ECT does not prevent further attacks; neither does it hasten recurrences. Although 50% of the total number of patients developed subsequent attacks during the 10-year period, these were spread throughout the decade. There

were several patients who had 4 to 6 episodes of recurrent depression during the decade, yet in these patients the pretreatment cycles were similar to those that followed ECT. It should be stressed that the majority of patients who have once obtained relief with this therapy will be brought more promptly for treatment when the next episode occurs (20-21).

#### C. The Success of Retreatment

Twenty-five of the patients who had recurrences were given additional courses of treatment by us. The majority had but one recurrence, several had 2 or 3, while 3 had 6 episodes. *Retreatment, as a rule, was successful.* In 15 patients a relatively similar number of treatments was necessary to bring about recovery. In 3 instances, fewer treatments were necessary, whereas in 7 patients the subsequent illness proved more resistant, requiring more extensive courses. Two of them did not respond in the subsequent treatment program. This greater resistance to treatment may come from added unfavorable factors, somatic and situational. The patients were 5 to 10 years older than when first treated. They had acquired other physical disabilities including, in one instance, cerebral arteriosclerosis, or they were handicapped by added insurmountable problems and responsibilities. This is illustrated by a female patient who, at the age of 42, responded promptly to a course of treatment given early in 1941. She became depressed again in 1945 and once more recovered with a brief number of electrical treatments. When the third episode of depression occurred in 1949, she was 51 years of age, was confronted with serious economic difficulties, and more especially with lonesomeness because of the death of her husband. The third course of treatment yielded only moderate temporary relief.

### IV. A CRITIQUE OF COMPLICATIONS

The 10-year follow-up study permits us to answer quite definitely questions that were raised after the introduction of electrocoma therapy, as to immediate and potential cumulative complications.

A. *Death.*—There were no deaths during the course of treatment and during the 1-

year period following its completion. Nine of our patients died up to 1951, 1 to 10 years after treatment, from such causes as carcinoma, heart disease, and cerebral vascular disease. Six of the deaths occurred in persons free of mental symptoms and apparently functioning well prior to the development of the fatal illness.

*B. Mental State.*—Recently, Kalinowsky (22) investigated the question of brain damage from the use of ECT from neuro-pathologic, psychologic, and electroencephalographic standpoints. It was his conclusion that no permanent brain damage occurred in this form of therapy. Huston *et al.* (23) had contributed a controlled study showing no reduction in mental efficiency from ECT. Perlson (24) published a case history of a patient who had received 248 shock treatments without showing mental deterioration.

We did not carry out a series of psychological tests before and after treatment, but we have had the opportunity of observing closely a substantial number of our patients. As we measure their response to the day-to-day challenge of living, meet them socially, and observe their adjustment and growth professionally, it is our impression that no significant deterioration has taken place. This statement applies both to those patients who had one course of treatment in 1941 and have been known for almost 10 years, and to patients who have had several courses of treatment. The clouding of memory and the occasional confusion that take place after treatment are for the most part transient and reversible complications.

Several of our patients are confined to state hospitals where their behavior has been described as deteriorated. These were the difficult schizophrenic patients whose fate was similar to that which we had observed over the years before ECT.

*C. Epileptic Attacks.*—Not a single patient in our series developed epileptic attacks.

*D. Lung Complications.*—No instances of tuberculosis or lung abscess have been encountered.

*E. Skeletal Systems.*—The patients in our series had the usual back and other bone, muscle, and joint complications. During the follow-up period, we have not encountered a single instance of persistent back pain, de-

formity of the spine, or neurologic complication. Our study is thus in line with the careful follow-up report of Polatin and Linn (25) of 26 patients who had vertebral complications from electrocoma therapy. Ten years after the initial trauma, only 4 had occasional mild backache and none has shown neurologic or orthopedic complications.

#### V. ELECTROCOMA THERAPY AND THE REDUCTION OF SUICIDES

The effectiveness of electrocoma therapy in reducing suicides has been a controversial issue. Robie (26), basing his opinion upon life insurance statistics, gave considerable credit to ECT for the reduction of suicides. His conclusions and method of interpretation were disputed by Barhash (27). We shall not attempt a review of statistics on a national scale because a large number of variables, far beyond the influence of ECT, enters into the suicide rates. Our own limited material provides an interesting bit of data. Of the 100 patients in the follow-up study, 15 had made suicidal attempts prior to treatment. When this procedure was first used in our community, only the more seriously ill patients were referred for this therapy. *Not one of these patients attempted suicide during our period of observation covering the active treatment phase, as well as aftercare; and, to the best of our knowledge, not a single patient in the series committed suicide during the 10-year follow-up.* As a control we may call attention to the fact that, during 1941, treatment was withheld from a number of patients because of opposition of families to a new and, at that time, unproved method, or because of our own reluctance. Three of the 10 patients untreated did commit suicide. Our findings are in line with the comparative figures submitted by Huston and Locher (28) on the subject of suicide in involutional psychosis. Of the group treated by them without electrocoma therapy, 7% were suicides, while among those treated with ECT, there was only 1% suicidal death rate.

Our further experience in the decade 1941-1951 corroborates our impression of the signal value of ECT in suicide prevention. During this longer interval we treated a large number of patients, many on an ambulatory

basis. A considerable percentage were obsessed with ideas of self-destruction. Yet, we encountered only several deaths from suicide. These occurred when hospital beds were required but not available or when hospitalization was refused, and in 2 instances when the family neglected to maintain the vigilance necessary. In suicide prevention, ECT alone is not all-sufficient; there is required companionship, vigilance, and in the more desperate cases hospitalization.

#### VI. ADVANCES IN ELECTROCOMA TECHNIQUE AND EXPERIENCE DURING THE DECADE 1941 TO 1951

There have been many modifications, especially in the technical phases of the apparatus, yet the essential nature of the treatment remains the same as was introduced by Cerletti and Bini in 1938. The major improvements are in the direction of measures that add to the comfort of the patient, improved ease of administration, and the more effective integration of electrocoma therapy with other treatment methods.

*A. Ambulatory Treatment.*—Extensive experience over the past decade has firmly established the value and even the distinct advantages of extramural treatment. Hospitalization is no longer essential in the adequate handling of many of the patients who require treatment, provided there is a careful selection of patients based not only upon the individual patient, but also upon the family's capacity to assume responsibility. An experienced psychiatrist can administer a complete program of treatment in a properly equipped office, clinic, or outpatient department of a hospital. Such extramural care saves time, reduces the need for hospital beds and attendants, eliminates commitment in some cases, or the cost of providing private care in others, helps to maintain prestige, and even accelerates recovery. Ambulatory treatment facilitates maintenance care and obviates the sharp and difficult transition between hospital and home. It provides for a better integration of psychotherapy with electrocoma therapy. Our results in the ambulatory treatment are in agreement with the experience of Impastato *et al.* (29); Hauser and Peters (30); Linn and Rosen (31); and Malinson (32).

*B. Apparatus.*—Various modifications of the electrical procedure as to factors of dosage have been introduced. The chief alteration is the use of a current of much lower voltage, so-called brief stimulus therapy (Liberson) (33). This modification has the distinct advantage of reducing the clouding of memory so frequent in the standard treatment. On the other hand, patients tend to awaken so quickly that they may become alarmed by the procedure. In our desire to remove fear and apprehension, we prefer the standard technique.

*C. Course and Timing of Treatment.*—It is the accepted procedure to give schizophrenic patients a large series of treatments, 20, 30, and more, if necessary. Manic patients can be benefited if they are given intensive therapy consisting of multiple treatments daily until calmness is reached. The concept that ECT should be given in a prearranged, compact series of a definite number of treatments is erroneous. The number of treatments and the timing should be gauged to the needs of the individual patient and follow-up maintenance treatments given as required.

*D. Integration of ECT with Other Methods.*—Electrocoma therapy is no longer considered a single, self-sufficient procedure to be used exclusive of other methods. On the contrary, it can be satisfactorily combined both with other physical therapies, such as insulin coma, and with psychotherapy. Best results are obtained when the patient is treated as an individual personality and his problem understood and corrected, with ECT employed to lift the patient out of the depths of a depression, improve physical well-being and direct mental processes from introspection to extroversion. Psychotherapy may be employed before, concomitant with, and after the course of ECT.

*E. Medication.*—We may utilize various medicinal agents to help the patient during the treatment as well as for symptomatic help:

1. Sedation prescribed the night before treatment as well as in the morning will reduce anxiety. We employ sodium amytal intravenously directly before the treatment in the majority of cases. This serves to allay apprehension, eliminates posttreatment, ex-

citement, and provides for a more gradual, calmer awakening after treatment.

2. Atropine sulphate, either orally or by injection, has been used in patients to reduce posttreatment nausea and excessive salivation. Bankhead, Torrens, and Harris (34) recommend atropine sulphate to prevent cardiac irregularities.

3. Codeine and salicylates may be given just before treatment to prevent posttreatment headache and muscular pain.

4. Certain medications are used in special instances as, for example, adrenalin in asthmatic patients and curare for those with vertebral pain (35).

*F. Additional Measures for the Comfort of the Patient and Cooperation of the Family.*—It is important to provide for better acceptance of the treatment and to reduce the fears that are so common in most depressed patients. The first step is the instruction of the family to enable them to understand, anticipate, and cope with the problems that arise during treatment, especially in ambulatory patients. The term "shock" is entirely avoided in any discussions with the patient. Prior to the institution of the first treatment we arrange a form of group psychotherapy that enables the new patient and his family to meet with and learn from those patients who are near the goal of recovery. As a rule, the beginner is uneasy and fearful and the family is also apprehensive. In these discussions, the recovering patient and those with him, imbued with the enthusiasm of returning well-being, speak in a friendly, encouraging manner with the newcomer. On a patient-to-patient level they provide example, hope, and reassurance, supplementing that which the professional staff can furnish. These sessions of intimate group therapy led by the psychiatrist anticipate problems that may arise, provide examples of well-being, and serve to encourage continuity of outpatient therapy.

In our outpatient program (36) we scrupulously avoid not only the word but the atmosphere of "shock" and keep electrical apparatus unseen. The patient is taken by a friendly attendant or nurse and made comfortable in a quiet, pleasant room. There is conversation on a neutral or cheerful subject, until a previously prepared intravenous in-

jection of sodium amytal is given. Quite promptly the patient becomes mildly euphoric or drowsy to the point of deep sleep. At this stage the nurse, chatting in a friendly manner, applies the electrodes to the forehead. The apparatus is then wheeled noiselessly into the room, the attendants gently hold the patient in the proper position, and the psychiatrist goes forward with the treatment. When the convulsive reaction is over, the patient is made comfortable and the apparatus removed. When he recovers from the treatment, he finds sitting at his bedside a member of his family who had come along with him. The patient is allowed to go home and encouraged to resume as many normal activities as possible.

We try to apply the above methods in the handling of hospitalized patients as well.

## VII. COMMENT

In the use of electrocoma therapy, 3 common attitudes and practices still prevail: opposition (nonuse), overenthusiasm (indiscriminate use), and sound appreciation (proper use). There are psychiatrists so bitterly opposed to ECT that they speak of it only to condemn it, who refer to this procedure as mutilation, and who, by direct statement or innuendo, withhold it from patients. There are other psychiatrists who have been reputed to employ ECT indiscriminately, disregarding diagnosis and neglecting other types of appropriate treatment. The majority of psychiatrists, properly, have a more sound appreciation of the limitations and benefits of ECT and employ this technique along with other methods of therapy (37). By expert handling and careful selection, they have brought tremendous help to countless patients and their families. Our continuous use of this procedure over a decade, in thousands of patients, and the 10-year follow-up of the 100 patients permit us to appraise electrocoma therapy, as a valuable technique. Our results are in line with those reported by Fishbein, Oltman and Friedman, Mallinson, Hinko and Lipschutz, Rickles, and Huston and Locher, as to the merits of ECT in shortening the duration of mental illness. Not only does ECT abbreviate hospitalization, but its use on an ambulatory basis eliminates, in many instances, the need

for hospital beds. This reduction in the number of days for the hospitalized patients and the sparing of beds in the ambulatory patients mean a saving to the community of expenses and labor, an amelioration of suffering.

We have not emphasized diagnostic categories in this study because of the all-importance of the individual patient. For example, 2 of our patients, given a poor prognosis on the basis of long-standing schizophrenia, improved and remained well for practically a decade. On the other hand, 2 depressed patients whose prognosis was favorable have remained more or less invalids throughout the same period.

We consider electrocoma therapy as approaching the value of a specific in states of depression, including the depressed phase of manic-depressive psychoses, the involutional melancholias, and schizophrenia loaded with affect. It is valuable as a symptomatic measure in schizophrenia and in controlling the behavior of difficult patients even with organic psychoses. It has proved itself of value in the older group of patients, some of whom have been thought to suffer from senile deterioration.

Electrocoma therapy is not an isolated, independent procedure to be used to the exclusion of other therapies. It should not be administered until a complete study has been made and milder therapeutic measures employed (except in emergency cases). It should be combined with medicinal agents, physical procedures, and with psychotherapy.

## VII. CONCLUSIONS

1. The immediate results of ECT are generally excellent, providing marked relief of symptoms in many psychoses. This relief amounts to a recovery in a high percentage of depressed patients.

2. A 10-year follow-up of 65 patients in whom depression was the cardinal difficulty reveals that 45 were relatively well, 16 moderately or slightly improved, and 4 unchanged or worse up to the time of the last contact.

3. Recurrences are common. Thirty-two of the depressed patients have had recurrences requiring further courses of treatment. After subsequent therapy, 18 were

relatively well and the condition of 14 was fair or poor.

4. Electrocoma therapy does not accelerate or retard recurrences.

5. The immediate complications were few and relatively insignificant compared to the benefits obtained. The 9- to 10-year follow-up revealed no cumulative complications; we did not encounter epilepsy, spinal deformities, or mental deterioration due to the treatment.

6. During the 9- to 10-year study there were 9 deaths, the first occurring 1 year and the last 10 years after treatment, from causes unrelated to the treatment.

7. Ambulatory ECT is effective. Properly administered by a competent psychiatrist with critical patient selection, it saves time, money, prestige, and suffering and enables a smoother integration of electrocoma therapy with other methods of treatment.

8. Present-day treatment makes it possible to administer ECT in a relatively safe, comfortable manner, removing the psychological atmosphere of shock.

9. Electrocoma therapy has proved valuable in the prevention of suicides.

10. Finally, electrocoma therapy has proved itself to be the outstanding addition to psychiatric therapy in the fifth decade of the present century. It is not a static, but a growing technique, which is being modified and improved and which should continue to help psychotic patients until newer and better procedures are introduced.

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## A PROFILE OF HOSPITAL FUNCTIONING<sup>1</sup>

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It should be stated initially that the methods set forth in this paper are not intended for use in connection with the rating of hospitals. This is not a discussion of the rating of hospitals. We are reporting methods that have been found to be useful to members of the Central Inspection Board of The American Psychiatric Association in obtaining a bird's-eye view of the functions of the hospital.

Mental hospitals are complex in both structure and organization and it is extremely difficult to form a true picture of their functional efficiency by ordinary means. One hospital may have a poor physical plant while another has buildings that are quite adequate. Overcrowding is present in most hospitals, but some have sufficient space to satisfy present-day standards. Different combinations are found in each hospital. Adequacy of plant and equipment does not always mean that the patients in a given hospital are receiving good care and treatment. On the other hand, poor facilities do not always preclude a good routine, schedules, therapeutic program of activities. Some hospitals with limited facilities do a better job than others that are well equipped. In the presence of such conditions it is necessary to evaluate each department individually if a satisfactory rating is to be made.

The Central Inspection Board has been inspecting hospitals for two years for the purpose of gathering material that can, at a later date, be used in appraising and evaluating their efficiency preparatory to rating them.

Following the inspection a complete report setting forth facts concerning present conditions and making recommendations for improvements is sent to the mental health authorities in that particular state. In this way those who are responsible for the manage-

ment and support of the hospitals are supplied with an evaluation made by an official neutral body (the A.P.A.), which they may use as they see fit.

The material furnished is suitable for use in connection with programs for public education and may also be used for the purpose of acquainting members of the legislature, budget officials, and other public officers with the actual conditions as described by an unbiased body.

Each report contains information on many different subjects: buildings, personnel, medical and surgical facilities, therapy, etc., all of which must be considered in making evaluations of the individual departments and of the hospital as a whole.

The Board members reviewing the reports soon discovered that it was difficult to keep this mass of facts in mind long enough to form a clear picture and a tentative opinion about the functional efficiency of a given hospital. A search was made for a method that would integrate the many elements and diverse activities that had to be considered.

The need for a table or some other device that would display the facts in such a way that the reviewers would be able to see the whole picture at a glance was soon recognized. Such a table, it was believed, would enable them to form a tentative opinion concerning the functional efficiency of the different hospitals and would also be useful at a later date in connection with the rating program. A printed form that made possible the recording of a tentative appraisal of all the departments under consideration on one page was eventually devised. This form (see Figs. 1 and 2) while not perfect has been found to be very useful. Each department is rated as Very Good, Good, Acceptable, Not Acceptable by the inspector at the time the report is written. If the department does not exist "None" is written in the proper column. The page number is given for each depart-

<sup>1</sup> Read at the 107th annual meeting of The American Psychiatric Association, Cincinnati, Ohio, May 7-11, 1951.

## NO. 1 HOSPITAL—A PROFILE OF DEPARTMENTAL EFFICIENCY

Department	Very good	Good	Acceptable	Not acceptable	Page No.
Buildings .....	...	...	×	...	...
Visiting and consulting staff.....	...	...	×	...	...
Resident staff .....	...	...	×	...	...
Nursing staff .....	...	...	×	...	...
Public relations .....	...	×	...	...	...
Social service .....	...	×	...	...	...
Psychology .....	×	...	...	...	...
Out-patient .....	...	...	...	None	...
Family-care .....	...	...	...	None	...
After care .....	...	...	×	...	...
Educational program .....	...	...	×	...	...
Surgical department .....	...	...	×	...	...
Clinical laboratory .....	...	...	...	×	...
X-ray laboratory .....	...	...	×	...	...
Electroencephalograph .....	...	...	×	...	...
Dental department .....	...	...	...	×	...
The pharmacy .....	...	...	×	...	...
Medical records .....	...	×	...	...	...
Medical library .....	...	...	...	×	...
Psychotherapy, group .....	...	×	...	...	...
Psychotherapy, individual .....	...	×	...	...	...
Brain surgery .....	...	...	...	None	...
Shock therapy, insulin.....	...	...	×	...	...
Shock therapy, electric.....	...	...	×	...	...
Hydrotherapy .....	...	...	×	...	...
Physical therapy .....	...	...	...	×	...
Occupational therapy .....	...	...	...	×	...
Industrial therapy .....	...	×	...	...	...
Recreational therapy .....	...	×	...	...	...
Patient's library .....	...	...	×	...	...
Religion .....	...	...	×	...	...
Restraint and seclusion.....	...	...	...	×	...
Personal hygiene .....	...	...	×	...	...
Clothing service .....	...	...	×	...	...
Tuberculosis .....	...	...	...	×	...
Dietetics department .....	...	...	...	×	...
The farm .....	...	...	×	...	...
Fire protection .....	...	...	...	×	...

FIG. 1.—Profile of hospital No. 1.

ment and the reviewer need not refer to the index or search through the text to find the information needed in checking these evaluations.

This form is referred to as "The Profile" because it furnishes an outline of the hospitals' functional efficiency. The material is displayed in such a manner that the reviewer can visualize the inspector's evaluation of the hospital at a glance. Facilities that are not acceptable or absent are clearly set forth and those that are acceptable or better appear in other columns. The percentages falling in each class are calculated and arranged in a table (see Table 1).

The "Profile" together with a few tables enables the reviewer to form an estimate

TABLE 1

## A. COMPARISON OF DEPARTMENTAL RATINGS FOR TWO HOSPITALS

Departmental rating	Hospital No. 1		Hospital No. 2	
	No.	%	No.	%
Very good .....	1	2.6	...	...
Good .....	7	17.9	2	5.2
Acceptable .....	18	46.2	5	12.8
Not acceptable .....	10	25.6	21	53.8
None .....	3	7.7	11	28.2

## B. RANGE OF DEPARTMENTAL RATINGS FOR HOSPITALS INSPECTED

Departmental rating	Range
Very good .....	0-1
Good .....	1-7
Acceptable .....	3-20
Not acceptable .....	26-10
None .....	11-3

## NO. 2 HOSPITAL—A PROFILE OF DEPARTMENTAL EFFICIENCY

Department	Very good	Good	Acceptable	Not acceptable	Page No.
Buildings .....	...	...	×	...	...
Visiting and consulting staff.....	...	...	...	×	...
Resident staff .....	...	...	...	×	...
Nursing staff .....	...	...	...	×	...
Public relations .....	...	...	×	...	...
Social service .....	...	...	...	×	...
Psychology .....	...	...	...	×	...
Out-patient .....	...	...	...	None	...
Family-care .....	...	...	...	None	...
After care .....	...	...	...	None	...
Educational program .....	...	...	...	None	...
Surgical department .....	...	...	...	None	...
Clinical laboratory .....	...	...	...	None	...
X-ray laboratory .....	...	...	...	×	...
Electroencephalograph .....	...	...	...	×	...
Dental department .....	...	...	...	×	...
The pharmacy .....	...	...	...	×	...
Medical records .....	...	...	...	×	...
Medical library .....	...	...	...	×	...
Psychotherapy, group .....	...	...	...	None	...
Psychotherapy, individual .....	...	...	...	None	...
Brain surgery .....	...	...	...	None	...
Shock therapy, insulin.....	...	...	...	None	...
Shock therapy, electric.....	...	...	...	None	...
Hydrotherapy .....	...	...	...	×	...
Physical therapy .....	...	...	...	×	...
Occupational therapy .....	...	...	...	×	...
Industrial therapy .....	...	...	×	...	...
Recreational therapy .....	...	...	...	×	...
Patient's library .....	...	...	...	×	...
Religion .....	...	...	×	...	...
Restraint and seclusion.....	...	...	...	×	...
Personal hygiene .....	...	×	...	...	...
Clothing service .....	...	×	...	...	...
Tuberculosis .....	...	...	...	×	...
Dietetics department .....	...	...	...	×	...
The farm .....	...	...	×	...	...
Fire protection .....	...	...	...	×	...

FIG. 2.—Profile of hospital No. 2.

of the total efficiency of a given hospital, and permits comparisons with other hospitals. Neither estimates of efficiency nor comparisons could have been made without a great deal of work before the Profile was put into use.

The Profile is filed with the office copy of the report where it may be used by those who wish to refer to the reports in the future.

There are certain tables used to supplement the Profile. One consists in an analysis of the hospital staff showing a comparison of the personnel quota, the number employed at the time of inspection, and the minimum standards of The American Psychiatric Association (Table 2). Very few hospitals have what might be called an adequate number of

employees and this table serves to demonstrate the deficiency. It includes the personnel for all the professional departments. Figure 3 presents the form used in an attempt to determine the relative efficiency of the hospitals in treating patients. The completed form shows the number admitted in each of the classifications of the standard nomenclature, the movement of this population during the first 12 months after admission, and the average length of stay for those released during that period. By the use of this table we can determine with considerable accuracy the speed with which the patients are brought to convalescence and returned to the community as well as the rate of successful results in the different psychoses. It was pat-

TABLE 2  
PERSONNEL QUOTA FOR THE STATE MENTAL HOSPITALS

Medical	Hospital No. 1 1,864 Patients			Hospital No. 2 1,330 Patients			Hospital No. 3 4,075 Patients		
	Present Quota	Now Em- ployed	APA Quota	Present Quota	Now Em- ployed	APA Quota	Present Quota	Now Em- ployed	APA Quota
<b>Medical</b>									
Superintendent .....	1	1	1	1	1	1	1	1	1
Assistant, Superintendent .....	...	...	1	...	...	...	...	...	1
Director, Clinical Psychiatry .....	1	1	1	1	...	1	1	...	1
Clinical Pathologist .....	...	2	1	...	...	1	...	...	1
Director, Medical-Surgical .....	...	...	1	...	...	1	...	...	1
Psychotherapist .....	...	...	1	...	...	1	...	...	1
Director, Extramural Psychiatry .....	...	...	1	...	...	1	...	...	1
Physicians and Psychiatrists									
Sr. Physician-Psychiatrist X.....	3	3	14	3	3	9	2	2	29
Ass't Physician-Psychiatrist IX, VIII....	5	4		2	...		11	4	
Percent of A.P.A. Quota.....	10	11	21	7	4	15	15	7	36
		52.4%			26.7%			19.4%	
<b>Nursing</b>									
Director of Nurses.....	1	1	1	1	...	1	1	1	1
Ass't Director-Administrator .....	2	2	1	1	1	...	1	1	1
Ass't Director of Education.....	...	...	1	...	...	1	...	...	1
Nursing Instructor .....	...	...	1	...	...	...	1	1	1
Supervisor of Nurses.....	10	6	94	13	3	69	10	5	211
Head Nurse R.N.....	14	2		...	...		44	7	
Staff Nurses R.N.....	5	...	...	...	...	...	10	...	...
Percent of A.P.A. Quota.....		11.2%			5.6%			7.0%	
<b>Attendants</b>									
Supervisor of Hospital Attendants VI....	3	1	4	2	...	6	...	603	...
Ass't Supervisor of Hospital Attendants V.	68	13		52	30	18	6		
Attendants IV .....	118	57	272	118	71	103	...	22	...
Psychiatric Aide or Practical Nurses.....	...	...		...	...		219	95	
Attendants III .....	58	34	31	15	15	322	305	...	...
Hospital Attendant II.....	31	17		...	...		...	...	
Percent of A.P.A. Quota.....		44.8%			64.2%			71.0%	

HOSPITAL

TABLE SHOWING STATUS OF ALL PATIENTS ADMIITTED IN 1969  
AT THE END OF 12 MONTHS FOLLOWING ADMISSION  
BY SEX AND DIAGNOSIS

[illegible]

FIG. 3.—Form used to determine relative efficiency of hospitals.

turned from the work done by Barton and Tompkins reported at the annual meeting of this Association last year. The chief objection to its use comes from the fact that the figures cannot be compiled until 12 months after the end of the year being studied. This delay is not desirable, but results cannot be studied until all the facts are available. It is believed that the information furnished by this tabulation will become more and more valuable as the years go by when comparisons with other hospitals and other years have been made.

The relationship of admissions, discharges, deaths, and the number on visit to the number under treatment should be determined in each hospital. This method has been used for many years as an index of mental hospital efficiency. Figure 5, which is a partially completed form, will serve to illustrate how much one hospital may vary from another in performance. It will be noticed that the admission rate is much greater in one hospital than in the other. This is an index to the efficiency of operation in the 2

HOSPITAL  
TABLE SHOWING THE STATUS OF ALL PATIENTS RELEASED ON VISIT  
DURING 1949 AT THE END OF 12 MONTHS FOLLOWING  
RELEASE BY SEX AND DIAGNOSIS

DIAGNOSIS	NO. RELEASED ON VISIT			STATUS 12 MONTHS AFTER RELEASE												AVERAGE NO. DAYS ON VISIT OF THOSE RET'D.		
				DISCHARGED			DIED			RETURNED								
	T	M	W	T	M	W	T	M	W	T	H	W	T	N	W			

FIG. 4.—Form used to determine status of discharged patients.

TABLE SHOWING A COMPARISON OF THE MOVEMENT OF PATIENT POPULATION  
BY HOSPITAL

Hospital	Under treatment		Total admitted		Total discharged		Released on visit		Total deaths		Total transferred out	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Hospital No. 1.....	1470	100.0	129	8.8	60	4.1	45	3.1	66	4.5	...	...
Hospital No. 2.....	2001	100.0	919	31.7	729	25.1	522	18.0	133	4.6	26	0.9

FIG. 5.—Form used to show comparisons between hospitals as to movement of patient population.

It is important, also, to know what happens to those who are released on visit and a form has been set up to furnish this information (see Fig. 4). The number released on visit, the number returned from visit, the number dying while on visit, the number discharged from visit, and the average length of time on visit for those who were returned are shown in this tabulation. This information is valuable because it is a rough measure of the efficiency of discharge methods. The number of returnees, if too high, indicates overenthusiasm and if too small may signify overcautiousness, both of which are undesirable.

hospitals as they serve similar districts in the state and presumably should have similar admission rates. It would appear that the first hospital has a better mental hygiene program. The number of discharges and the number on visit are very much larger in the hospital having the high admission rate while the deaths in the 2 hospitals are about the same percentage.

All of this shows that one hospital is active in both the community and the wards of the hospital and that the other, for some reason, is not. This could be due to a lack of personnel and equipment, to poor management, or to both, which may probably be the

case. Discharge statistics have many pitfalls. They are not comparable in many states, for they mean different things. It is not the purpose of this report to discuss the inadequacy of discharge statistics as ordinarily reported for the purpose of drawing conclusions about the therapeutic efficiency of a given hospital. Others are working on this important problem. It is hoped that ultimately some agreement can be reached and uniformity worked out so that the time, effort, and money put into tables, graphs, etc., with regard to discharge statistics will yield material that is valuable and important in evaluating the therapeutic efficiency of a hospital and something that can be used in comparing different hospitals.

It will be possible to compare all the hospitals in the United States and Canada when the inspections have been completed. Such a comparison should be of great value to the legislative and executive branches of the state governments. The material can be used also to acquaint the general public with conditions in their hospitals. Because of its brevity, clarity, and condensation and because of its pictorial appeal the Profile is particularly adapted to such uses.

Ultimately it is hoped that our reports will serve as a basis for the evaluations now made by the American Board of Psychiatry and Neurology and the American Medical Association in connection with the program for graduate medical education.

This Profile is not presented as something final. There can be objections raised against this particular construction. Certain elements may not be included that some persons would want. The evaluation as to good or not acceptable is the personal judgment of an individual inspector. There may be statistical objections to Fig. 3. But those who have read the inspector's reports have found the Profile and the associated tables to be graphic summaries that can be used to carry a comprehensive picture of a given hospital in mind. Otherwise, one is left, after reading a report, with a verbal memory of 75 or 150 pages. This quickly becomes vague as com-

pared with the concreteness and specificity that one finds in the graph. The Profile also offers the possibility of quick, brief, and graphic comparisons of hospitals. Ultimately a collection of such Profiles of the mental hospitals of the United States and Canada could be of great use in public education in these matters.

We might say in closing that, despite the many deficiencies that have been observed and reported, we have not been made aware of resentment on the part of any member of a hospital staff. This leads us to believe that the policy laid down by the Central Inspection Board and carried out by its inspectors, namely "to be constructively and helpfully critical," has proved its value.

#### SUMMARY

A graphic method of presenting the functional efficiency or evaluation of a mental hospital has been developed in the form of a Profile.

A few tables of statistics have been developed to point up the picture of facilities, personnel, and operation of a hospital.

Such abbreviated, condensed, pictorial summaries are needed when one tries to comprehend such a complex phenomenon as a public mental hospital in a unitary view.

The Profile is not presented as anything definitive but as a tentative method of presenting a diversity of elements in brief compass. It not only helps the evaluation of a given hospital, but will enable any board or group to compare hospitals and thus make rating fairer and more comparable.

Such a Profile should help a staff, superintendent, and Board of Trustees to carry a clear picture of the functional adequacy of their hospital in mind and turn their thinking to rectifying the not acceptable or absent elements in the Profile.

The Profile should, because of its abbreviated, condensed, and graphic nature, afford an effective tool for public education with regard to the mental hospitals in the United States and Canada.

## PSYCHIATRIC ASPECTS OF HOSPITAL ADMINISTRATION<sup>1</sup>

CRAWFORD N. BAGANZ, M. D.,<sup>2</sup> LYONS, N. J.

The hospital administrator who is a psychiatrist and who, therefore, most adequately understands drives, instincts, and motivations is the best qualified individual for directing these drives, instincts, and motivations of his personnel toward the greatest benefit to his patients.

Efficient administration—whether in a hospital or in a business—has been simplified to 3 prime functions: deputizing, authorizing, and supervising. Deputizing people to perform functions and giving them sufficient authority to accomplish these functions are mechanical acts of the efficient hospital administrator after he has used all the skills at his command in the selection of the proper people to perform these functions. Having fulfilled these qualifications, deputizing and authorizing require little but the initial action.

The tremendous problem of the hospital administrator is the problem of efficient and appropriate supervision. This supervision is impossible unless there is obtained a clear and free flow of information from the top levels of management to the individual at the operating level. Without this type of supervision, personality problems of the individual and the resulting personnel problems make their presence felt by discord, lack of harmony, and a low quality of care and treatment of patients.

It has been the experience of the author that the media for the propagation of information such as station bulletins, memoranda, orders, and discussions through the administrative echelons are not sufficient to secure an adequate flow of information from the top to the bottom. Certainly less critical

information reaches the hospital administrator than he needs. As an example of this, more than 2½ years ago this hospital was ordered by the appropriate officials in Washington to discontinue scheduled overtime pay. This information was published in a station memorandum, clearly indicating the source of the order and the effective date. It was also discussed with the various chiefs of service concerned and they, in turn, were requested to discuss this with their appropriate supervisors. After more than 2 years it was found, through personal contacts with many individuals in the lower echelons, that the reason for the discontinuance of overtime was understood by many to be the result of a personal vagary of the author of this paper. A true understanding for the need for such action and the source of the order were completely unknown to many individuals at the operating level. Not only did this experience reveal an inadequate flow of information through the regular administrative echelons, but it also demonstrated another well-known psychiatric observation that there is a great reluctance to accept unfavorable or unpleasant information. Certainly no one should be in a better position to recognize personality and personnel problems than the psychiatrically oriented hospital administrator. Were there none of these personality problems there would be few personnel and hospital problems.

More than 2 years ago the author initiated the "conference system" in hospital management by which the basic tenets of group psychotherapy were applied to the normal, quasi-normal, and the pseudo-normal supervisors of approximately 1,400 employees. These conferences were established in an attempt to secure from the operating supervisors those personality and personnel problems that interfered with their happiness, their satisfaction with the work they were doing, and with good patient care.

These conferences were informal discussions that in no way violated the dignity of higher echelon supervisors and consisted of

<sup>1</sup> Read at the 107th annual meeting of The American Psychiatric Association, Cincinnati, Ohio, May 7-11, 1951.

This article was reviewed by the Veterans Administration and is published with approval of the Chief Medical Director. The statements and conclusions of the author are the result of his own study and do not necessarily reflect the opinion of the Veterans Administration.

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methods for the dissemination of information from the management of the hospital to the operating level, and, in turn, management received the difficulties encountered at those levels. It was made a cardinal rule that the dignity and authority of the supervisors of this group were not in any way violated and that higher level supervisors were always represented at these conferences.

Employees were encouraged to present their problems, to ventilate their aggressions, and to offer suggested solutions to pertinent problems. The expected reluctance to speak to the hospital administrator was encountered at the first few sessions. In part, this reluctance was overcome by asking individuals to submit their problems unsigned and in writing. Other methods for overcoming this reluctance consisted of dividing the meeting into 2 portions: one in which the information was given to the individuals present and, when problems were encountered, the advice and suggestions of the individuals were requested; second, following each open session a "round robin" took place in which each individual was asked to comment upon his problems or accomplishments.

As another management technique in situations where there was evident reluctance to speak critically in front of supervisors, such reluctance could be frequently overcome by the use of 3 x 5 cards on which individuals asked questions or voiced criticisms without being identified. This procedure was used frequently during the early meetings to overcome a reluctance or, even in some cases, an imaginative fear but usually was discontinued in a short time as the individuals had more confidence.

It was found that after participating in 2 or 3 meetings at weekly or semi-monthly intervals this reluctance to speak freely was overcome; and, after it was demonstrated that the problems presented to the administrator resulted in either corrective action whenever possible or an explanation of why such action could not be taken, confidence was developed. This self-confidence grew and the discussion became more open and the participation more widespread.

The basic tenets of group psychotherapy were of course adhered to: that promises

made should be kept, that no individuals should be exposed to ridicule, and that suggestions and comments of all should be considered in a dignified manner.

Many problems were brought to the attention of the administrator that he did not even know existed in the hospital, some of which could be solved readily and quickly; others required prolonged study. For example, the question of the disciplinary action to be taken with a psychiatric aide who fell asleep on duty was discussed at length. A committee was appointed to study this problem. At once it became apparent that psychiatric aides on night duty had insufficient supervision and that their duties were not clearly outlined. The committee's report indicated that falling asleep on duty might be corrected by the assignment of specific tasks to be accomplished by this group, the establishment of methods for obtaining coffee and food, increasing the amount of supervision, and methods to encourage an increasing sense of responsibility and importance of the position. These recommendations were made by a committee at the operating level and when instituted resulted in a marked decrease in the occurrence of the serious offense of sleeping on duty.

Another example of the value of these group meetings was apparent when it was discovered that several first-line and higher supervisors in one large operating unit were attempting to impede the flow of information from the operating level to management. The reason for such action was that they felt if this information reached management the operation of the unit would not be held in as high esteem as if management were ignorant of these problems. A most difficult group therapeutic situation resulted when these supervisors were in conference and the question was brought up as to "how much should be told."

These are but two of hundreds of examples of problems that have been brought out during these meetings and thoroughly illustrate the practicability and value of the psychiatrist using his own stock in trade when that psychiatrist is an administrator of a hospital.

All psychiatrists recognize the need for

group acceptance, group identification, the need for self-esteem, recognition, and even variations of the basic drive of self-preservation. They can provide personnel with useful and socially accepted outlets for these drives by the practical application of the basic prin-

ciples of psychiatry in hospital administration.

One cannot help wondering how often in the administration of psychiatric hospitals, "who is worse shod than the shoemaker's wife?"

## CONDITIONAL RESPONSES IN PATIENTS RECEIVING ELECTRIC SHOCK TREATMENT<sup>1</sup>

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### INTRODUCTION

Numerous observations have been published concerning the nontherapeutic psychophysiological effects of electric convulsive therapy (1-10). Most commonly noted in this respect have been confusional states related especially to recall and memory difficulties and distorted temporal or spatial cognition (11-15). Studies of this problem in man have been largely confined to the usual psychological tests, the solution of simple problems based primarily on previously established patterns, and to memory and recall exercises for remote material and for items learned just before treatment (16-19), aside from clinical and laboratory data (20-31).

This report concerns solely patients' ability and facility to analyze and work out a new problem by synthesizing a specific and protective motor reaction as a conditional response to a painful stimulus without the benefit or utilization of verbal communication beyond preparatory instructions (32).

### METHODS

Utilizing defense against pain in the form of a conditional response (CR) as a test for the integrity of cortical activity of the highest order in man was introduced by Gantt in 1938, and described in detail (33, 34, 71). Briefly, the patient is exposed to 2 different light signals and to a slightly painful electric shock to the left hand 5 times in succession in conjunction with one of the visual stimuli. After this he is told to press a bulb with his

right hand just before he expects the shock. He is not told that pressing the bulb at the proper time interrupts the shock current. The test was not carried beyond the stage in this study (*i.e.*, analysis of retention, inhibition, and extinction), except that if the patient performed well in tests during and after treatment it was repeated then and there using different light signals to eliminate any memory factors (retention) beyond the range of that particular experiment. After each test

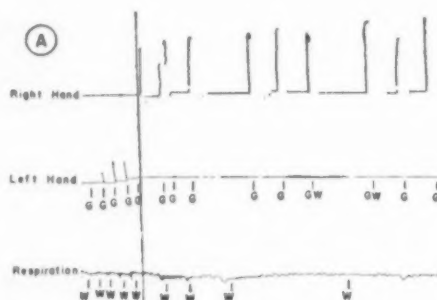


FIG. 1.—Patient 6, showing complete recovery in last test. *W* is for white light without shock. *G* is for green signal and designates the excitatory stimulus. The left hand received the shock and the right hand worked the bulb switch. The vertical line indicates when the patient was instructed to work the bulb switch.

the patient was requested to account orally for the whole procedure.

During the test recordings were made with 3 ink writers on a revolving drum, of the movements of the left hand, of the use of the bulb switch, and of respiration. The signals and other incidental occurrences were noted on the graph by the experimenter (see Figs. 1 to 4). The patient was observed through a one-way window so that the experimenter could not be watched by the patient.

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The test results are rated as follows (Figs. 1 to 3):

"A" means no impairment in analysis or synthesis of the motor CR.

"B" means slight impairment in either analysis or synthesis, or both.

"C" means marked impairment of one or several of the above elements, and possible lack of insight into the problem evidenced during subsequent inter-

metabolic, or toxic—the performance rating is often C, D, or worse. In some of these latter patients the verbal account or insight may outclass their actual performance (34, 35).

A group of 10 inpatients receiving electric shock treatment on the basis of clinical considerations was used for this study. Aside from routine physical and laboratory investigations each patient had a chest plate, an electrocardiogram, a conditional reflex test, and an electroencephalogram before treatment was instituted. All patients in this group had brain waves within normal range.

Treatments were given on alternate days. The seizure was produced with a standard Offner machine using 100-120 V., A. C.

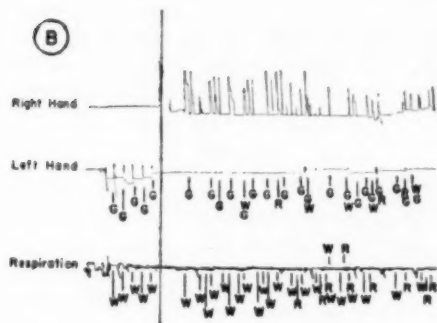


FIG. 2.—Patient 3, showing difficulty in differentiation, especially after introduction of additional inhibitory signal R (red). After 7 convulsions.

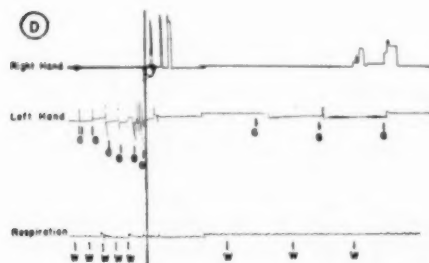


FIG. 3.—Patient 8, last test. Failure in differentiating signals. Increased latent period with last signal. Anxiousness and confusion indicated by pressing bulb without signal and by removing left hand from electrode.

view. Can form CR only with help of verbal explanations.

"D" means complete inability to elaborate conditional reflexes and, usually, no insight into the problem.

It has been established that patients suffering from nonorganic disturbances perform in the range of A or B, even if their subsequent verbal account is very inadequate and seemingly lacking in insight. In the presence of organic brain disturbances—structural,

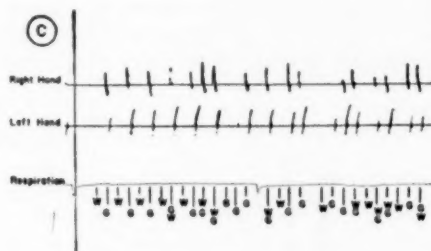


FIG. 4.—Patient 9, last test. Showing good differentiation, but prolonged latent period produced failure in preventing shock. Nine weeks after series of 9 treatments.

current through temporally placed bilateral jellied electrodes. A major seizure was effected during each treatment by stepping up either the milliamperage or the duration of the current flow in cases where a first try did not produce a grand-mal-like convulsion. All patients were given .15 cc. Intocostin (E. R. Squibb & Sons) intravenously for each 10 pounds of body weight prior to the shock.<sup>3</sup>

Diagnostically the patients formed a diversified group (see Table 1), and they were included in the study consecutively as soon as they were scheduled for electric seizure therapy during this period. The age range

<sup>3</sup> The treatments were carried out by the various members of the house staff under the supervision of Drs. Eduard Ascher and Edward Ohanesson, and the authors are indebted to all of them for their cooperation.

TABLE 1

## TEST RESULTS

Case	Age	Diagnosis	Total No. Before treatment	After seizure number												Clinical condition on discharge
				1	2	3	4	5	6	7	8	9	10	11	14	
1	53 F	Psychotic depressive reaction	6	C	..	..	..	..	..	..	..	..	..	..	..	Improved
2	38 M	Neurotic depressive reaction	6	C	..	C	..	..	B	..	..	..	..	..	..	Improved
3	55 M	Psychotic depressive reaction	7	A	..	..	..	B	..	..	..	..	..	..	..	Improved
4	29 F	Psychotic depressive reaction with schizophrenic features	16 (2nd course)	D	..	D	..	..	D	..	..	..	..	..	..	Slightly improved
5	28 F	Schizophrenic reaction	6	D	..	D	..	..	D	..	..	..	..	..	..	Slightly improved
6	60 M	Psychotic depressive reaction	2	A	C	A	..	..	..	..	..	..	..	..	..	Improved
7	42 M	Dissociative reaction (amnesia)	10	C	D	..	A	A	..	A	A	B	B	..	..	Unimproved
8	39 F	Manic-depressive reaction depressed	8 } 12 } <sup>20</sup>	B	..	B	C	D	..	D	D	..	..	..	..	Improved
9	38 M	Psychotic depressive reaction	9	B	..	..	..	..	..	..	..	..	..	D	..	Improved
10	53 F	Psychotic depressive reaction	15	A	..	A	..	..	..	..	A	..	..	..	A	Improved

Improved

was from 28 to 60, and there were 5 men and 5 women. Except for the repeated testing itself the study did not interfere with the patients' clinical program and activities. No parallel or ancillary observations or measures were carried out beyond the clinic routines prescribed by the staff for these patients. None of them received sedation beyond dosages intended to produce restful nights, if possible.

Tests during the treatment period were always performed approximately 24 hours after the latest seizure.

### RESULTS

Altogether 52 tests were performed, the minimum being 2 and the maximum 11 in any one patient. The results are tabulated in Table 1, and show that the performance rating declined in 6 of the 10 patients (Cases

ance, however, was as low as ever, indicating more definitely organic interference at this time. However, low test results in chronically schizophrenic patients had been reported previously (34). Patients 4 and 5 also showed the least clinical improvement. Otherwise there appeared to be no consistent relationship between the degree of defect that developed and clinical betterment.

The rather low performances of patients 1, 2, and 7 on the first test were not considered due to organic interference. They cooperated poorly in any sphere and patient 7 suffered or claimed to suffer from amnesia that was demonstrably selective, and he repeatedly resisted instructions during his first 2 tests, asserting that he could not remember what he was told. He always claimed to have forgotten everything concerning the test during the interviews following immediately, although he remembered having brought to

TABLE 2  
TEST RESULTS

Patient number	1, 2, 5, 6	3	8	9	7	8	10	4	8
Total number of seizures.....	2-6	7	8	9	10	12	15	16	20
Weeks after treatment during which defect persisted .....	..	2	3	9	..	1	2	2	1

3 and 6 through 10). In 2 patients this deficit had disappeared by the time of their last test (Cases 6 and 7). Patients 3 and 10 showed defects 1 and 2 weeks after their last convulsions respectively and in patient 9 the impairment persisted for at least 9 weeks afterward. Patient 8 showed a deficit 3 weeks after the eighth seizure and again, or still, during and after a second series of 12 shocks begun one month after the end of the first course.

The low performances of cases 4 and 5 all through the test period were probably due to psychological difficulties in adjusting to the test situation itself, but because of this low rating an organic disturbance could not be ruled out in any one of their tests. This is especially pertinent to patient 4, who had had 18 electric shocks 4 months before the series during which she was tested. During the last experiment 2 weeks after termination of treatment she was in better contact and gave an adequate account of the test and her intention to prevent the shock. Her perform-

the test room his pipe which had been hidden during the experiment. From the third seizure until after the seventh he showed no evidence of organic impairment. Then his performance declined. Patients 1 and 2 were deeply depressed and rather resistant to instructions, despite verbal compliance.

Tremor appeared in patient 6 after the first seizure, and in patient 7 after the seventh convulsion. It was present during the test following the fourth treatment in patient 8 and then increased again after the seventh seizure, to remain more marked from then on. No other clinical neuropathological manifestations were noted in this group.

Positive relationship between the chronicity of the organic impairment and the number of treatments is suggested by the results (Table 2). The 2 patients whose performance returned to the rating preceding therapy had 2 and 10 seizures respectively (Cases 6 and 7). Only in the last one did the deficit persist beyond the treatment period, but less than 2 weeks. Improvement of performance

occurred in patient 2 after 6 seizures and in 7 after the first 2 treatments (see above).

The 3 patients in whom organic interference was evident 2 weeks after the last seizure and beyond had 9, 15, and 20 shocks respectively. Lastly patient 4 showed organic impairment 2 weeks after the last of 16 fits and her poor rating throughout may have been related to an earlier series of 18 convulsions 4 months previously.

It is especially these low performances after termination of treatment that require attention in contrast to the low ratings 24 hours following a convulsion. The disturbance in the latter situation is variable and attributable to lack of differentiation or inability to resist the impulse to squeeze the bulb, irrespective of light signals, or both.

The last tests of patients 4, 8, 9, and 10 revealed that despite recognition of the positive signal and its significance the patient failed to press the bulb switch in time to prevent the shock, and patient 10 began squeezing the bulb erratically only after her failure to accomplish her (correct) intention. Patient 9 showed this difficulty most consistently 3 weeks after the end of his shock series. He stated, "I tried to time it. Only after you repeated instructions did I press it right a couple of times. Maybe I didn't press hard enough." The record shows clearly that the switch was operated each time after the left hand had been shocked (Fig. 4), as if the patient could not "time it" as he intended to do.

#### DISCUSSION

Although the vast majority of reports in the literature based on clinical observations state that memory difficulties are frequent but short-lived and disappear within a few weeks after treatment (4, 5, 13, 16, 19, 24), some authors have stressed that they can last much longer and are a source of complaint and concern especially in those patients whose recovery had remained incomplete (1, 6, 9, 10, 28, 30, 36).<sup>4</sup> While it is not the purpose or scope of this paper to consider the

psychophysiological mechanisms of electric shock remissions, it seems pertinent to point out that the findings described may play a part in the dissatisfaction with and concern over shock therapy effects expressed by such incompletely restored patients (9, 10, 31, 37, 38).

It was pointed out introductorily that the synthesis of a new CR, and therewith a person's ability to deal with, adapt to, and if necessary protect himself from new situations, depends upon the integrity of the highest cortical functions and associations (32-35, 71). A minor lesion or disturbance in basic functions especially in the frontal areas may often not produce impressive clinical manifestations, especially if the patient's reliance and the observer's focus are on past experiences and patterns (39-42); only careful and specially adapted psychological studies may reveal at times the far-reaching consequences on the range of associations and adaptive flexibility (39-43). That the range of associations (Goldstein's abstraction) is narrowed and their production delayed or distorted after ECT has been shown by Diethelm (12), by Janis (14, 15), and by Rabin (44). Disturbance in temporal correlations has been stressed by others (3, 8, 11). It is therefore plausible that some patients' recovery or restoration can be delayed or hampered indefinitely because of organic disturbances rather than that such patients are more aware of a temporary deficit because of their continued maladjustment.

Animal experiments have shown consistently that electric shock interferes with learning (45-50), *e.g.*, maze performance whether it is a new task (45-47) or one learned previously (51-55). The number of errors in such performances (56) or the time necessary to accomplish such tasks is significantly increased (57). In most of the observations cited these disturbances have been temporary.

Rosen and Gantt have demonstrated the deleterious effects of metrazol convulsions on established conditional response patterns in dogs (58), and Riess has found comparable disorganization in rats receiving daily electric shocks (59).

Search for brain damage due to electrotherapy in human subjects (5, 60, 61) as well

<sup>4</sup>That organically determined failure to form conditional responses involves visceral reactions as well as the skeletal muscular system was shown recently by Reese, Gantt, and Doss (*Psychosom. Med.*, in press).

as in animals (62-66) has produced conflicting results, but it is certainly evident that lesions due to extravasation of lesser or greater degree including fatal ones can occur (60, 61), and probably do occur, therefore, in a certain percentage of patients treated. Clinical evidence of altered or abnormal cortical activity is most consistently found by EEG (6, 20, 21, 23, 25, 29-31). Examination of the CSF, neurologic observations, and psychological tests have not produced any evidence of consistent or even of significant temporary disturbances (4). However, to repeat, these examinations are concerned with gross neuronal integrity or with past and established behavioral patterns rather than with the adaptability to new situations. It is known how readily circumscribed defects in mentation can be compensated for in tests based on established patterns unless special methods are devised (39, 40, 67).

Improvement in the utilization of some previously established adaptive pattern is to be expected on the basis of observations in animals, that electric shock among other effects lifts the inhibition of conditional responses that had become extinguished by lack of reinforcement (45, 49, 65, 68). Similar phenomena have been reported concerning patients' performance in psychotherapy following shock therapy (7, 8).

However, inhibition is also at the basis of learning and in particular is indispensable if new response patterns and complex achievements are to evolve. Thus if seizure introduced "disinhibition" spreads beyond the re-establishment of previously useful adaptive patterns, there may occur increasingly disturbing interference with the highest echelons of cortical integration. In this way, unless memory and recall disturbances are marked, improvement in many performance tests based on earlier patterns can be anticipated once the organically determined confusional hypomanic posttreatment phase has subsided (4, 7, 13, 16-19, 69), while more subtle amnesic disturbances, such as failure to correlate experiences serially and temporally, may persist. These "minor" defects may have far-reaching consequences, however, if essentially new situations or problems have to be met.

The cognitive and associative disturbances noted by others and demonstrated in the experiments reported here in at least 3 patients (Cases 8, 9, 10) suggest that organically determined functional impairment may occur more often than can be noticed clinically and that the salient defects are akin to those found in Korsakoff's syndrome or similar amnesic states (11, 35, 38-42, 70).

#### SUMMARY AND CONCLUSION

Ability to form a conditional response to a slightly painful stimulus was tested in 10 patients before, during, and after electric shock therapy. Fifty-two experiments revealed decline in performance in 6 patients. In one the deficit disappeared within 24 hours, and in another within 2 weeks after the last seizure. Two were not tested beyond 2 weeks after treatment, and in the other 2 the impairment lasted at least 3 and 9 weeks respectively. In one of these the defect persisted through a second course of electric convulsions one month later. A seventh patient with a uniformly poor record showed an organic type deficit more definitely 2 weeks after the last seizure.

This failure to adapt defensively to the experimental situation appears to be related to the number of convulsions the patient has undergone. The nature of the impairment is discussed together with some of the pertinent literature. Its essential features appear to be limitation of associative range and inability to analyze and synthesize sequentially related phenomena, especially with regard to temporal relationships.

Together with data from animal experimentation the findings suggest that important adaptive, organically determined deficits may occur more often as a result of electric convulsive treatment than are clinically recognizable.

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#### DISCUSSION

Dr. JULES H. MASSERMAN, M.D. (Chicago, Ill.).—The question that Drs. Fleck and Gantt set themselves in this clinical study was an important one: namely, does electroshock "therapy" significantly impair the highest functions of the human cortex as measured by accurate perception of stimuli, rapid association and retention of meaning, and effective response to experience? The answer given in the paper is simple and direct: ECT does produce such impairments of cerebral function to a clinically significant and experimentally demonstrable degree. This conclusion is all the more pertinent because the authors' methods and results are relatively immune to the usual criticisms, viz: the small number of patients, the variability in their diagnoses, the propriety of calling the relearning process a "conditional reflex," or the possibility that requiring either male or female subjects to squeeze a rubber bulb (the Luria technique) may have introduced erotically symbolic distortions. In reply to such strictures, the authors need merely point out that the experimental data, though sparse, are quite consistent; that most of us, admittedly or not, have long since ceased to take 2-word clinical "diagnoses" seriously, that the Pavlovian terminology employed in the paper is, semantically speaking, no worse if no better than other linguistic approximations, and that interpretations of the supposed erotic significance of various symbolic acts remain mere sophistries until they are actually demonstrated to be operationally relevant. Further, any attempt to dismiss the results of this research because of the brevity of the period of follow-up after ECT can also be countered by the simple reminder that the central nervous system can never truly repair any injury done to it; on the contrary, the best that can be expected is only partial compensation of function even if an unlimited time were allowed.

As the authors state, then, a mass of evidence

including recent animal experimental studies in our own laboratory has accumulated to the point at which we must now consider ECT from 2 all-important aspects. The first is that ECT, because of the very fact that it drastically disrupts cerebral function, may be temporarily useful in some cases in which currently adverse behavior patterns can be broken up in no other way. If these aberrant patterns are recent and superficial they can be altered or disintegrated with relative ease, after which their place might be taken by favorable patterns of conduct established with concurrent psychotherapy and subsequent social rehabilitation. However, the second consideration is that these same processes of recovery may be severely handi-

capped by the impairment of adaptive capacity that inevitably accompanies ECT—an impairment that leaves hidden but ineradicable lacunæ of disability. This is particularly pertinent when the patient is an artist or scientist whose highest assets (and greatest social value) lie in his intelligence or esthetic virtuosity—gifts that in our well-meaning blundering we may ruthlessly and irrevocably dissipate by the injudicious and sometimes tragic use of electroshock or other drastic therapies. Drs. Fleck and Gantt, in their own valuable work and in their succinct summary of the literature, have sounded another sober warning about this, and we owe it to our scientific and clinical conscience to give serious heed.

## GRIEF REACTIONS IN LATER LIFE<sup>1</sup>

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The gerontologic unit within the Department of Psychiatry at McGill University has been running an old age counselling service since 1945. A description of this type of service and the main problems involved has been given on previous occasions (1, 2). One of the most frequent situations with which one has to deal in this age group is that of bereavement. This is probably accentuated by the fact that the patients seen in the counselling service are members of the indigent population. In such a socially and economically selected group the patient comes to the attention of a social agency for the first time when he or she loses a marital partner or some other family member. In the following study an attempt is made to draw attention to certain features of grief reactions that are particularly striking within this age group and that may differ in character from grief reactions in younger age groups.

### SUBJECTS

The present observations were made on 25 subjects, one of whom was male and 24 of whom were female. The age at the time of interview varies from 53 to 70. As has been indicated (1), the problems encountered in old age can only be artificially differentiated from those of the involutional period. Therefore, in this study the age range is greater and the lower age limit is 50.

### METHOD

A social history is taken by the social worker before the psychiatrist sees the patient. A systematic psychiatric history is

taken in the first interview, which is followed by a varying number of informal interviews. For reasons previously given (1), even the first interview has to be kept "free" so that the patient does not have the feeling of a systematic "history taking." The facts have to be compiled gradually during several interviews, as well as from the history taken by the social worker.

### OBSERVATIONS

A composite picture of these cases presents itself as follows. There is a dearth of overt mental manifestations of grief or of conscious guilt feelings. On the other hand, there is a preponderance of somatic illness. In some cases the time relationship between the onset or accentuation of these somatic illnesses and the time of bereavement is quite obvious. The image of the deceased undergoes peculiar changes in the consciousness of the mourner; the idealization commonly encountered during the process of grief sometimes assumes bizarre degrees. In contrast to this there frequently develops an irrational hostility toward living persons, particularly in the patient's immediate environment. Here there is also a time relationship between the onset of the hostility and the time of bereavement in some cases.

The features are best illustrated by some case examples.

A woman of 59 (Mrs. A. C.), who had lost her husband two years before she was first seen, developed arthritis at the time of his death. She had an operation for prolapse of the bladder on the day of the anniversary of his death. "Coming out" of the operation she developed a pain in her right arm that since has "spread all over."

A man of 59 (Mr. J. S.) developed breathlessness and a large amount of sputum within the year following his wife's death, which had occurred 6 years before the first interview. At that time bronchiectases were diagnosed.

A woman of 63 (Mrs. I. T.) who had lost her husband 6 years before the first interview, suffered

<sup>1</sup> Read at the 107th annual meeting of the American Psychiatric Association, Cincinnati, Ohio, May 7-11, 1951.

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3 accidents within 4 years, always when in domestic employment. On one occasion she slipped and broke her wrist while the family for whom she was working was preparing the house for Christmas.

A woman of 68 (Mrs. E. G.) was seen 5 months after the death of her husband. The latter had given up work 5 to 6 years before his death because of "heart trouble." During the 6 months before he died he was unable to hold his urine. His wife nursed him during this time. Three months after she had begun to nurse him she developed diarrhea. When asked how she reacted to her husband's death she said that it still came as a shock to her. However, this was stated without any sign of emotional depth. Six weeks after her husband's death she had an intestinal operation for her diarrhea. A surgeon told her afterwards that "the large bowels and the small bowels were intertwined and that is what caused the pain." When first seen she still complained of this diarrhea, of precordial pain, and undue fatigability. Since the time of her husband's death she had lost 15 lbs. She had no emotional complaints except for "worrying about everything." She looked serious but laughed quite readily at times and was able to see a joke. The conversation lacked spontaneity and all information had to be gained by specific questions.

One woman of 63 (Mrs. I. R.) was admitted to the Allan Memorial Institute with the typical picture of a senile dementia. Interviews of the relatives revealed the fact that her organic cerebral syndrome set in immediately following her husband's death. This time relationship was stated independently by several relatives.

This woman was born in Montreal. Her father died at the age of 84 of cancer. He was an engineer and had emigrated from England. Her mother died of cancer at the age of 80. The patient was the third of 10 children of whom 6 were still living at the time of interview. Two children died in infancy of meningitis, one sister died of typhoid fever, one brother died of cancer, and another brother had been in a mental hospital for the last 10 years. After completing high school she took a business course and worked for more than 10 years with an insurance company.

At the age of 28 she married, and her husband was approximately the same age. Her relationship with him seems to have been a very dependent one. She said that arguments were her fault because she was "such a little snip." She had very high praise for his thoughtfulness, his ability at the office, and his musical talent: "I don't like to brag but. . . ." The main social activities of their life were centred about the church and the choir, for which her husband was the organist. He was employed by an insurance firm. They entertained friends in their home. She could not have children and said that she now felt inadequate. She treated her nephew "as my son."

According to information obtained from her sister, the patient had never been considered a strong person. Twice she had travelled to England because

she felt "terribly worn down" after the death of a near relative. These trips made her feel much better. She had had a gynecological operation many years ago. She had a gastroenterostomy for the relief of an obstructive ulcer. She had had pleurisy and bronchitis the 2 winters previous to the death of her husband.

In August 1949 her husband died suddenly as the result of an accident; while doing some house painting he fell on a picket fence and his lung was pierced. Following his death she became restless and anxious; at the same time it was noticed that she became forgetful, increasingly disoriented, and negligent in her everyday work. In October 1950 she was admitted to the Allan Memorial Institute.

She was a short, thin and pale woman, with a mild facial asymmetry. She would move restlessly about the ward, repeating over and over that she was a nuisance to everybody, that she could not understand why people were so kind to her, and that she ought to have her glasses fixed. Physical examination revealed diminished hearing in the left ear, diminished vision in the left eye, a sluggish right pupillary response, an equivocal plantar reflex on the right, bradycardia (50), and retinal arteriosclerosis.

Interview: (What is your name?) "Ivy, a plant. . . . I was the first girl, so they thought they had to give me a flower name. . . . You have a pretty view up here. . . . My husband and I used to go for lovely walks in the fall. . . . Do you have a son? . . . A doctor who examined my eyes had a son here, that's why I thought you might have a son. . . ."

(What is wrong with you?) "Just if I could see, read. . . . it's my eyes."

(How long have you had this?) "It dates back to childhood. I think I had a fall when I was a child, I think it's that what causes all the trouble. . . ."

(Is there anything else wrong with you? You would not be taken into this place on account of your eyesight.) "I don't know. . . . They told me to come in here, that's all."

(How do you sleep?) "I sleep fairly well since I got over the shock. It was a month, I don't know exactly."

(How is your appetite?) "Thank you, that's improved."

(How is your memory?) "The first little while after the shock I didn't remember so well."

(What would you say is the date today?) "I don't care. . . . I didn't follow it up. (Looks through the window.) Oh, I do know, it's November sixth, my birthday." (Correct)

(What year is it?) "Oh, I don't have any occasion, I didn't write letters. . . . Oh, I give up, I'm half asleep anyway."

(Would you say it is closer to 1948 or to 1938?) "I would rather say it's 1940 something than 1930 something."

(Examiner had introduced himself twice before. "What is my name?") "I don't think I heard it."

(Examiner repeats his name.) "Oh yes, you told me so. I thought I had only my eyes to be tested."

(What was the shock you mentioned?) "I made a great mistake. My brother-in-law said all the time to keep it up. . . . That's why my side is sore all the time, I feel tight here. I don't get any breath. It's dreadful to be alone in the house. You know we were very near, we had no children. That silence in the house, how can I stand it? My brother didn't understand me (cries). You see, my husband was musical, we often had the choir in the house. When the accident took place he had three different offers to play the organ."

She gave contradictory reports as to the actual time of the accident. Her retention was severely impaired on counting tests(3). She showed considerable stability in her defects during several examinations within two weeks.<sup>2</sup>

The following examples illustrate the actual attitude toward the lost person; all "dark" features are blotted out and the deceased becomes transfigured in an unreal way.

A woman of 60 (Mrs. E. D.) who had lost her husband 3 years before the first interview complained of "feeling bad" in a busy or noisy environment. Her sleep was poor, appetite varied, digestion was irregular. "Sometimes I don't feel too bad, at other times I feel like dying." She described her husband as a "wonderful man." Actually he had been an alcoholic who deserted her on several occasions and was cruel when intoxicated. There were notes in the record at the Family Welfare Association to the effect that she had come running for protection and help. In successive interviews she gave a glowing picture of her husband, and when finally confronted with the facts she denied them.

A similar situation existed in the case of a woman of 61 (Mrs. H. W.), who was seen in private practice. She had lost her husband 7 years before the first interview. This woman referred to her deceased husband in terms that struck the examiner as almost fantastic glorification. Moreover, she invoked his name in connection with any, even trivial, decision she had to make. Remarks such as, "Walter would want me to do this . . ." or ". . . would not want me to do that," occurred frequently. She had a villa in one of the most beautiful spots of Sweden and spent part of every year there. Several rooms of the villa remained untouched, as if she were dealing with a shrine in his memory. The history taken from her son and her daughter revealed that the husband had been a psychopath with sadistic features. He had retired early in life, around the age of 40, living on his ample income. Every morning he would sit at his writing desk and compose an exact timetable of duties for each member of the family. This included physical exercises, open air walks, etc., even for the Parkinsonian mother-

in-law, who frequently pleaded not to have to go for walks on cold days but was forced to do so just the same. He carried on an affair with the children's governess for many years, and would bring well-known dancers and actresses as "guests" into the home. Our informants told us that the patient had not only known about these things, but it seems that her husband made sure that she would know about them.

Another trend observed in our group was toward self-isolation, and of hostility against people in the bereaved person's surroundings. In fact, at times the immediate reason for which the social worker brought the client to the attention of the old age counselling service was precisely because he or she had "turned against" other roomers in the house, or against a member of the family, usually of the same sex as the deceased.

A woman of 61 (Mrs. M. B.), who was first seen 2 years after her husband's death, complained of insomnia and anorexia. "I've had a sour stomach all my life. Milk, if it is not cooked properly, doesn't agree with me." She said that she had cried a good deal since her husband's death. "If it were not for crying I'd be dead. It's the only thing that relieves me."

At the age of 27 she had married a man 10 years her senior. She said that she had known her husband since childhood "because he came into her house." For several years before his death he suffered from "amnesia" (described what appeared to be senile dementia) and she apparently had a difficult time with him. "He wanted to go out all the time. One night he went out in his underwear and with his straw hat on." The last 6 months of his life he was in a mental institution. They had one child, a married daughter. After his death, our patient had a terrible quarrel with her son-in-law. When asked why, she was rather vague: "I did not like the way he acted. . . . He is rather a nervous man himself."

The private patient mentioned above developed a marked hostility against her son-in-law shortly after her husband's death. She described him as a cruel man who held her daughter in subjugation. Actually the daughter was happily married and, according to the latter as well as her son, the picture she gave of her son-in-law was completely distorted and would actually have fitted her husband.

#### TREATMENT

None of the cases described here was psychotic, nor was the depression of such a degree that electric shock treatment or hospitalization was necessary. The mechanisms of transference are largely modified in this age group(2). In view of the numerous so-

<sup>2</sup> The authors wish to thank Dr. D. Ewen Cameron for allowing them to use his test results in this case.

matic illnesses it must be emphasized that the patient needs to feel that the psychiatrist keeps close track and shows genuine interest in all medical and surgical procedures.

All channels toward sublimation have to be carefully exploited. The private patient (Mrs. H. W.) whose husband had been "idealized" in such an incongruous fashion developed a strong hero-worship of her minister, and began much church activity and community work, and is now on good terms with her son-in-law.

A large part of the therapy in the cases described consists of manipulating the environment. The mechanisms of hostility and self-isolation have to be interpreted to the relatives. Whenever possible the patient himself should be led up to the point of insight. In the cases of irrational hostility directed toward a member of the family the hostility disappeared during the course of the interviews.

#### DISCUSSION

Reactions of grief and mourning are so important from a clinical point of view that they have been studied intensively (4-9). Most of these investigations are based on psychoanalytic concepts. The one persistent trend apparent in all these papers is the one implied in Freud's original study (4), and best formulated in the observation by Helene Deutsch (5), namely, that the "work" of mourning must be viewed in the light of the psychoanalytic theory of libido. This theory is based on an analogy between the "conservation" of libido on one hand, and the law of conservation of energy on the other.

From a review of the literature it appears that grief reactions in later life have never been studied systematically. If we look at the most important features observed in our group, namely, the relative paucity of conscious guilt feelings, the tendency toward a replacement of the emotional grief reaction by somatic equivalents, the distortion of the image of the deceased in the direction of some unreal glorification, the tendency to self-isolation and hostility toward surviving members of the family or toward friends, it seems that they all lend themselves to an interpretation along the lines evolved in the psychoanalytic literature. Helene Deutsch

(5) explained the absence of mourning in children on the basis of the assumption that the child's ego is too weak to carry out the "work" of mourning. Grief would endanger the ego at that stage to such a degree that the child has an immediate scotoma for the loss. However, she contends that the process of grief must be completed later. Now it has been stated that old age is characterized by a weakening of the strength of the ego; on this basis it has been assumed that involutional depressions are due to the fact that dynamic forces emanating from the superego are relatively prevalent during the involution (10). This relative strengthening of the superego is made possible by the waning of the ego in the aging person.

If this theory is correct one should, at first sight, assume that conscious guilt, or a tendency toward delusions of guilt, should be found more frequently in old than in young bereaved persons. Our observations, however, seem to indicate the opposite. In order to explain this apparent discrepancy, namely, between a greater tendency to overt guilt in later life melancholias and the comparative absence of guilt in states of mourning, we have to consider the following. Under certain circumstances the older person is more ready to "channel" material that would produce overt emotional conflict into somatic illness. It is interesting to note in this connection Cobb's observation that the correlation between psychogenic trauma and rheumatoid arthritis became greater as the age of the investigated patients increased (11). Something analogous was observed in the first hundred clients of our old age counselling service (1). It would be the subject of a special study to decide whether these somatic illnesses represent a tendency toward self-punishment or an expression of the death wish and an identification with the deceased. However, it is safe to assume that the aging organism is biologically more ready for somatic equivalents of depressions. Even the senile dementia observed in one of our cases obviously represented such a flight into the somatic. It is generally known that degenerative cerebral disease can be enhanced or precipitated by emotional factors. Kral (12) showed that in elderly inmates of concentration camps there were not more affective psy-

chotic disorders than would be expected in a control group but there was, under emotional stress, a definite tendency toward precipitation of organic senile psychoses. Incidentally, it is interesting to study the verbal productions of our senile patient from the point of view of the symbolic connotations of the psychogenic factor. She believes that she is in the hospital to have her eyesight tested. This may be interpreted, as in the case of a hysterical blindness, as representing her wish "not to see." Moreover, she thinks that her illness is due to a fall she had during childhood. On another occasion she points at the side of her chest and indicates that it hurts in there. There is little doubt that the "fall" and the pain in her side are associated with the mode of death of her husband who had been killed by falling on a picket fence and piercing his lung.

The most extensive and systematic study on grief reactions (Lindemann(8)) was carried out chiefly on the bereaved persons after a disaster with violent death. This kind of death has unconscious symbolic connotations that, for obvious reasons, lend themselves more to the formation of ideas of guilt. In elderly people the death of the deceased has often been expected over a long time; there is frequently a history of nursing the sick person for a long period before death; the bereaved person is at an age at which he is preparing for death—in other words, contrary to situations like those described by Lindemann, there is more opportunity to identify with the deceased rather than feel guilty toward him.

This may also explain the tendency toward distortion. Helene Deutsch(5) emphasized that ambivalence toward the deceased is the most difficult conflict to master during the reaction of mourning. In our cases we saw a tendency to preserve an image of the deceased consisting only of light without shadow. We might say that the shadow is buried, or in those cases in which the shadow is not repressed it is projected onto a living person. This would explain the irrational hostility toward a living member of the family. In fact, the description that the bereaved gives of the relative toward whom he displays hostility may correspond surprisingly to the objectionable features of the deceased.

In any case, the ambivalence is handled by splitting the image of the deceased into two. This mechanism is suggestive of an ego defence. To work through the ambivalence on a conscious level would be too great a strain. In purifying the image of the deceased to an unreal degree, the bereaved fulfils narcissistic needs that are urgent at this stage of life and avoids the intolerable stress of overt hostility.

Thus, we can tentatively explain all the phenomena observed here on the basis of defence against dynamic forces that would be destructive to a weakened ego. Apart from this, it is possible that the "somatic equivalents" of grief reactions are facilitated by identification with the deceased and the death wish of the mourner.

#### SUMMARY

Grief reactions in later life have been studied in 25 subjects, 23 of whom attended an old age counselling service. The most striking features in this group were: a relative paucity of overt grief and of conscious guilt feelings, a preponderance of somatic illness precipitated or accentuated by the bereavement; a tendency to extreme exaggeration of the common idealization of the deceased with a blotting-out of all "dark" features; a tendency to self-isolation and to hostility against some living person. These features are discussed in the light of the psychoanalytic theories of mourning and depressions in general, as applied to the psychological dynamics of later life. A brief outline of the management of these cases is given.

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## ON THE POSSIBILITY OF PREDICTING HUNTINGTON'S CHOREA BY ELECTROENCEPHALOGRAPHIC STUDY<sup>1</sup>

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Since Huntington's chorea does not become manifest until the age of 35-50, after the patients have passed the greater part of their fertile period as healthy individuals, the possibility of ascertaining the presence of the morbid gene at an early stage of the patient's life would be of great value in preventing the spread of the disease.

In 1948 Patterson, Bagchi, and Test (2) of Ann Arbor reported an electroencephalographic (EEG) study of the offspring of patients suffering from Huntington's chorea. In 19 out of 26 subjects they found unmistakable changes, comparatively severe in 12. These 12 subjects were considered probable carriers of the morbid gene.

The EEG changes consisted of (1) dominant slowing of waves, (2) sudden high-voltage episodic slow or fast bursts, (3) abortive or genuine bilateral spike-and-wave formations, and (4) exaggeration of the above characteristics during hyperventilation. In addition, several EEGs showed disorganization of pattern because of mixture of various frequencies and amplitudes. The changes were found mainly in the frontal and motor leads.

Among the 26 offspring of patients with Huntington's chorea 8 were over 20 years of age, whereas the remaining 18 were in the first 2 decades of life at which age the significance particularly of minor EEG changes must be assessed with a certain reserve. The abnormal tracings in this series, however, occurred mainly during the first 2 decades of life. This is rather strange, since the most marked changes would be expected just before the usual age of manifestation, if the changes were interpretable as an early sign of Huntington's chorea.

### PRESENT INVESTIGATION

In an endeavour to test the results of Patterson and co-workers a total of 25 adult off-

spring of Huntington's chorea victims was studied at the University Institute for Human Genetics in Copenhagen.

The series includes only cases in which the diagnosis of Huntington's chorea was beyond doubt, partly because of the clinical characteristics, partly because of the occurrence of similar cases in other members of the family. All the offspring examined were over 20 years of age. The age distribution is set out in Table 1.

No one was included who had a known history of serious cranial injuries or meningo-cerebral lesions that might be expected to have caused permanent EEG changes.

The study comprised the taking of an ordinary neurological history and EEG tracings made with the Kaiser 8-channel electroencephalograph. The placement of the electrodes was according to Jasper, *i.e.*, in the frontal, motor, parietal, occipital, and temporal regions. In addition to the monopolar leads with one lead from each electrode to the homolateral ear, we used also bipolar leads with longitudinal and circular connection between the electrodes. Each recording was continued for about 30 minutes including a 3-minute period of hyperventilation.

The EEGs were interpreted according to the lines set out by Lennox, Gibbs, and Gibbs (1).

Two of the 25 subjects showed unmistakable signs of Huntington's chorea, which had not been diagnosed previously.

One (Case 6), a 49-year-old clerk, had been suffering for the past 5 or 6 years from involuntary choreiform jerks in the head and limbs, several unmotivated falls, a feeling of restlessness, and impairment of memory. It was difficult to read the EEG because of numerous muscle discharges. The alpha rhythm, which occurred but seldom, was 9-11 per second. Large parts of the EEG showed low-voltage-fast activity; nowhere abnormal waves.

The other patient (Case 13) was a 36-year-old business man who for the past year had been complaining of restlessness, disturbances of sleep, and impairment of memory. In addition he had noted some difficulty in controlling the movements of his hands, particularly in the morning. He would often cut himself badly while shaving and wrote

<sup>1</sup> From the University Institute for Human Genetics, Copenhagen. Chief: Professor Tage Kemp, M. D.

with difficulty. This patient's EEG showed low-voltage-fast activity without any alpha rhythm. Nowhere abnormal waves.

Thus, both patients exhibited low-voltage-fast activity without other signs of EEG abnormalities.

The remaining 23 subjects exhibited no clinical symptoms. Of them 16 had completely normal EEGs with an alpha rhythm ranging from  $8\frac{1}{2}$ -12 per second without abnormal waves of any kind; 1 exhibited low-voltage-fast activity; 5 had doubtful minor changes in otherwise normal tracings; 1 had

monopolar lead a few spikes. Hyperventilation was followed by a few bursts of 6 per second activity (voltage 50 microvolts) lasting for 1 second. The changes were most marked in the occipital leads.

Case 22, female, aged 28. EEG: Irregular: regular alpha rhythm, 9-11 per second, was outstanding only in places. In the monopolar lead one burst of 6 per second activity (voltage 50 microvolts) lasting for  $\frac{1}{2}$  second. The changes were most marked in the occipital leads. No effect of hyperventilation.

Case 24, female, aged 26. EEG: Regular with an alpha rhythm of about 9 per second. In the bipolar as well as monopolar leads several bursts of 7-8 per second activity (voltage 25 microvolts) lasting for 2-5 seconds. In addition, a few abnormal

TABLE 1  
EEG DATA ON 25 OFFSPRING OF PATIENTS WITH HUNTINGTON'S CHOREA

Case	Age	Sex	Clinical signs	EEG
1	57	male	....	normal
2	53	female	....	normal
3	53	female	....	normal
4	51	male	....	normal
5	49	male	....	borderline
6	49	male	Huntington's chorea	low-voltage-fast
7	45	male	....	normal
8	44	male	....	borderline
9	42	female	....	normal
10	40	female	....	normal
11	37	female	....	normal
12	37	male	....	normal
13	36	male	Huntington's chorea	low-voltage-fast
14	35	male	....	normal
15	33	female	....	low-voltage-fast
16	32	female	....	normal
17	32	female	....	abnormal
18	30	female	....	normal
19	30	male	....	normal
20	29	male	....	normal
21	29	male	....	normal
22	28	female	....	borderline
23	27	male	....	normal
24	26	female	....	borderline
25	22	female	....	borderline

a definitely abnormal EEG. The 7 abnormal EEG cases were as follows:

#### *One low-voltage-fast EEG*

Case 15, female, aged 33. EEG: Low-voltage-fast activity. Only in places outstanding alpha rhythm about 9 per second. No abnormal waves.

#### *Five borderline EEGs*

Case 5, male, aged 49. EEG: Regular with an alpha rhythm of 9-11 per second. In the monopolar lead a few spikes (voltage 25-50 microvolts), most marked in the occipital and parietal leads. No effect of hyperventilation.

Case 8, male, aged 44. EEG: Regular with an alpha rhythm of about 10 per second. In the

random waves (voltage 25-50 microvolts). The changes were most marked in the right temporal and parietal leads. No effect of hyperventilation.

Case 25, female, aged 22. EEG: Regular with an alpha rhythm of about 9 per second. In the bipolar and monopolar leads several abnormal 7 per second random waves (voltage 20-50 microvolts). The changes were most marked in the occipital leads, increasing during hyperventilation.

#### *One abnormal EEG*

Case 17, female, aged 32. EEG: Regular with an alpha rhythm of about 12 per second. In the monopolar lead a few episodic bursts of 5 per second activity and 50-150 microvolts lasting for  $\frac{1}{2}$ -1 second. The changes were most marked in the left occipital lead. No effect of hyperventilation.

## DISCUSSION

It will be seen that the result of the study was entirely negative, the series of 23 clinically healthy, adult offspring of patients with Huntington's chorea including only one (Case 17) with a definitely abnormal EEG, and in this one case the changes were only moderate. In the 5 EEGs with minor changes of doubtful significance, the latter were usually most marked in the occipital leads and not, as in the series of Patterson, Bagchi, and Test(2), in the frontal and motor leads. On the whole, the findings in the present series can hardly be said to differ from those among the average population in which small uncharacteristic EEG changes are quite common, particularly in the young age groups.

It is not known how much importance may be attached to EEGs of the low-voltage-fast type. Bagchi often found this pattern among patients suffering from Huntington's chorea. In the present series, it occurred in both the subjects with clinical symptoms of the disease and in one of the healthy subjects. Low-voltage-fast EEGs, however, are not at all uncommon in completely normal persons, particularly when erethism and tension prevent them from relaxing during the recording. Therefore, low-voltage-fast EEGs cannot either be interpreted as a sign of Huntington's chorea in the offspring of patients affected with this disease.

In other words, it is not possible to predict the morbidity among the offspring of patients with Huntington's chorea by means of EEG with the current technique.

## SUMMARY

In order to study the possibility of demonstrating the presence of the morbid gene among the offspring of patients with Huntington's chorea by electroencephalography before its clinical manifestation, a total of 25 such offspring were submitted to electroencephalographic study. The examination revealed initial signs of Huntington's chorea in 2, both of whom had electroencephalograms (EEGs) of the low-voltage-fast pattern. Among the 23 clinically healthy subjects, definite EEG changes were demonstrable in only one. Another one had an EEG of the low-voltage-fast type, and 5 exhibited minor changes of doubtful significance, whereas in 16 the EEGs were normal in every respect. The writer concludes that this method does not seem to be able to afford a possibility of demonstrating the presence of the morbid gene with anything approaching certainty.

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## PSYCHOTHERAPEUTIC PRINCIPLES IN CASEWORK INTERVIEWING<sup>1</sup>

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As the specialized interviewing method of social work, casework represents a unique achievement in the field of mental health. It provides the means of assisting that large class of persons whose emotional problems are the result of life situational stresses. The casework method is not merely the transplantation of procedures borrowed from psychiatry into the unfamiliar soil of a field ordinarily remote from psychiatric interest, but a true readaptation, appropriate in content, method, and goals to the special problems with which it deals.

Casework invites the interest of the psychiatrist from many points of view. It has widened the horizons of service to people with emotional distress, people who are not ordinarily accessible to psychiatric treatment. As a method of psychological treatment, it is of significant practical and theoretical interest to the psychotherapist. In the psychiatric clinic, and in other psychiatric settings, the two professions have established a close working relationship in which the psychiatrist carries medical responsibility. In such situations, the psychiatrist has the direct administrative responsibility of acquiring a thorough understanding of the professional content of social work in order to integrate it most usefully into the general treatment program. It seems to me that, in general, any two professions may best work together when they are sufficiently well acquainted with the theories and practices of each other to permit easy and free cross-interpretation.

In this paper, I shall present my observations of casework as I have seen it practiced in a variety of settings over a period of many years. There are sharp differences of opinion in social work itself as to philosophy and method in the practice of casework. I realize that my own close identification with casework as co-worker and teacher tends to put

me in the position of a prejudiced observer. However, I shall try to present what seems to me to be essential and intrinsic in the practice of casework, particularly from the standpoint of the long-range interests of mental health programs.

An interview is in general a purposeful, planned discussion, based upon a hierarchical relationship between two people, to which the person in the submissive role lends his consent and participation. In the service professions, particularly, the interview is undertaken in the interest of the interviewee, or client. It is mainly in psychiatry and social work that the client's emotional resistance to free consent and participation has been recognized, and it is in social work that this recognition has been most consistently applied, especially in the training programs of the schools of social work.

An interview is guided by psychotherapeutic principles when its purpose is to bring about reality-oriented responses to unwelcome or conflictful situations, or attitude modification in the direction of more appropriate or more highly adaptive behavior. A good deal of social work is concerned with purposes of this nature. The psychotherapeutic principles utilized in casework interviewing have gradually become more refined and sophisticated through intensive cooperation with modern dynamic psychiatry.

As with other disciplines, the professional content of social work is determined by the nature of the services it offers. In general, one may say that social work exercises the function of social support of families in distress. In its thinking, it is family-oriented in the way that medicine has been traditionally patient-oriented. The concept of the "whole patient" in medicine is paralleled by the concept of the "whole family" in social work. However, within this family reference, the social worker attempts to help the individual client to meet the social and personal problems arising out of the disturbed situation.

Whether in public assistance, family serv-

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ice, child placement, medical, school, or psychiatric social work, the social worker is likely to find himself offering services to people with every degree and kind of psychopathology. They are the deprived, the suspicious, the troubled, the overburdened, and the underprivileged; people who have been beset by social and health disasters, and have not had the economic, social, or personal resources to tide them unaided over periods of crisis.

Social work has traditionally not been concerned with the treatment of psychopathology as such but with the task of helping people to meet stress situations even in the face of the self-limiting and self-defeating tendencies found in many clients. It has developed interviewing techniques based on psychotherapeutic principles in order better to accomplish this traditional task. It has so completely incorporated psychodynamic concepts that casework may seem at times to come very close to the psychotherapeutic goals of psychiatry. Indeed, there is a trend at present, in a few social work agencies, to think of their function as essentially therapeutic in a clinical sense. If this trend were to become general, it would lead to the unhappy result of the means replacing the end. Social work, having set out to offer better service to clients by taking into consideration the factor of emotional resistance, would find itself losing sight of its original service goals in order to treat the resisting factor.

The psychiatrist is led by training to practice treatment within the frame of reference of psychopathology and clinical diagnosis. It is hard for him to think of treatment in any other way. It is hard for him to think of his patients except in terms of their psychopathology and psychodynamics. The psychiatrist sees the neurosis before he sees the person. It is an inevitable and necessary bias. It makes it possible for the psychiatrist to be deeply preoccupied with the severe forms of mental illness.

On the other hand, in recent years, many psychiatrists have become increasingly aware of the importance of situational anxiety, particularly as a somatization phenomenon, in all kinds of patients and in all kinds of medical settings, particularly in relation to the personal, familial, and economic threats

of illnesses requiring long hospitalization. Psychiatrists with experience in the military services are well acquainted with the protean physical manifestations and the ubiquitous spread of the anxiety equivalents. In increasing numbers, patients with emotional reactions to situational crises are coming to the attention of psychiatrists. However, although there is a growing field of overlap between psychiatry and social work, the main lines of development of each will undoubtedly preserve their own traditional patterns of thought and their own special areas of interest.

The social worker is trained to look for the reactions of a person in a situation. He has learned that common stress situations produce emotional reactions that have common features even when there are marked diversities in the personalities of the people concerned. The social worker may thus be said to have a psychologically informed situational bias. The psychological thinking of the social worker is not dominated by the psychiatrist's psychopathological interest. It is rather the special ego psychology of stress reactions. Although there are certainly a good many psychiatrists who have a lively and sensitive appreciation of the validity and reality of this kind of psychological thinking, it is not their primary professional responsibility. Likewise, there are also social workers with special training and experience in the orientations of psychopathology and psychodynamics, but again these are not the orientations of social work as a profession.

Casework interviewing has its own diagnostic approach, based upon the special psychology of the reactions of the person in a situation of stress. This may be illustrated by a few examples. When a patient enters a hospital for the treatment of a mental illness, the psychiatrist is primarily interested in establishing the clinical diagnosis in order to determine the indicated course of treatment. With the same patient, the social worker is interested in ascertaining the meaning to him and to his family of this experience of hospitalization. The social worker looks at the experience as a stress situation, disrupting the previously established life patterns of the patient and his family. He understands the deep ambivalence of the patient in facing

hospitalization, and the conflicts and guilts of the relatives. These reactions do not depend on the clinical diagnosis; they are rather attendant on the social circumstances and implications of hospitalization for a mental illness. The importance of these reactions is perhaps underrated by many psychiatrists, but they are of central interest in the thinking of the social worker.

Another example is seen in the treatment procedures of the child guidance clinic. It has become increasingly clear that coordinated and concurrent treatment of mother and child is a method of high therapeutic effectiveness. It is recognized that the mother's reactions to the child's problems may be of crucial importance in maintaining the child's symptom behavior, particularly by blocking the child's spontaneous ego-integrative growth potentials. Treatment of the mother is now generally accepted as the professional responsibility of the social worker. The worker is treating not the psychopathology of the mother but her reactions to the difficulties with her child. Such treatment is often successful despite the presence of marked disturbances in the character structure of the mother.

We have a fairly good understanding of the reactions of a mother who is asking assistance from a child guidance clinic for the behavior problems of the child. The mother carries a burden of failure and guilt. She anticipates criticism and censure. She tends to project her sense of blame by overemphasizing the severity of the child's problems and by condemning his behavior. Her exaggeration of the problem and of her own distress, and her efforts to justify her behavior, are defenses against the fear that her difficulties will not be understood or appreciated, and that she will be rejected as a person and criticized as a mother. The fear of rejection is in turn related to a need for dependent support. Her coming for help is an expression of her feelings of being isolated, unprotected, and vulnerable. In many subtle and disguised ways, she will express doubts about treatment, and about the willingness and the ability of the worker to be of help.

Diagnostically, then, the worker attempts to formulate the reactions of the client to the life situational problems that have ini-

tiated a call for help, and to understand the distorted presentation of these problems under the pressures of conflicts about asking for help. In this biphasic diagnostic evaluation, the worker tries to visualize the strivings and disappointments, the conflicts and fears of the person in a threatening life situation. What is the meaning to the client of the difficulties he is facing, and what does it mean to him to be dependent on another person for help?

Casework treatment, like psychotherapy, is related to its own kind of diagnostic thinking, and is consistently applied in all the fields of casework practice. What is the meaning of the experience of placing a child, of adopting a child, of asking for public assistance? It is this kind of curiosity and understanding that guides the practice of casework. In working with mothers in a child guidance clinic, the worker will base his early activity on the diagnostic formulation described above. He will help the mother to recognize and work through her conflict of feelings in relation to the difficulties with the child as well as in coming for help. He will be alert to changes in the mother's feelings in response to the child's treatment, and to the child's changes of behavior and attitude in treatment, and deal with them as they arise. In other words, treatment in casework is based upon an ongoing process of diagnostic evaluation.

The themes of the psychological conflicts aroused by stress situations are relatively few, and tend to reproduce previous reactions during the developmental periods of childhood. The more common themes are the following: conflicts in relation to the dependency-hostility series, which reactivate early childhood dependency crises; conflicts in relation to authority, which revive oedipal and oedipal-derived problems; and conflicts in relation to group status, which are derivatives of sibling rivalry. These conflicts may be neurotically elaborated as the result of developmental experiences, and are then more likely to become the concern of the psychiatrist. However, the neurotic person is also called upon to face anxiety-laden situations that evoke his special responses of psychological defenses, but also the common situational responses. A neurotic mother may find herself overburdened with the problems

of a difficult child. A neurotic patient with tuberculosis may find it extremely difficult to face the prospect of leaving the sanitarium after a long period of hospitalization, and react with neurotic symptoms. In such instances, casework may be helpful in relieving the situational anxieties, and this may very well be all that is indicated for the particular patient.

The mother in conflict with her child runs the gamut of conflict reactions. She is concerned about the opinions of her neighbors, *i.e.*, about her group status, but she is also plagued by her own dependency needs clashing with those of the child, by fears of her own hostility secondarily activated or present from the beginning, and by conflicts stemming from the relationship to her own mother. In the course of casework treatment of the mother, the worker expects such conflicts to emerge, to be recognized, and to be discussed. It is apparent here, and in all casework problems, that an understanding of the dynamics of human relations is an indispensable resource, and that progressive enrichment of such understanding will provide the worker with increasing skill and maturity in treatment.

It should be emphasized that, although casework is based upon an understanding of the interpersonal, conflictual aspects of situational crisis, it is not specialized in relation to the situations with which it works. The diagnostic acumen and interviewing skill of the caseworker are adaptable to all the varieties of life situations in which personal conflicts develop, and in relation to which casework agencies have been established.

It may now be possible to review, on the basis of the foregoing comments, the psychotherapeutic principles that have been absorbed into casework. If one follows the sequence of casework treatment, emphasis should first be placed on what may be called the *therapeutic attitude*. The caseworker's approach to the client is nonjudgmental and noncritical as to the client's person, his customs or religion, his social or political beliefs, his life situation or his personality. He respects the client's right of self-determination, the right to make his own decisions and to arrive at his own solutions, while at the

same time respecting the realities to which both worker and client are equally subject.

The casework process uses a *diagnostic approach* that is centrally concerned with the emotional impact of life stresses, and the reaction of the client to the difficulties of facing his problem with a professional person. It recognizes the universality of conflict response to the stresses of different situations, while taking into account the individuality of personality and the particular psychological defensive patterns of the individual. It recognizes that common situations produce common emotional reactions regardless of character structure, as in the case of the client asking for financial assistance, for the placement of her child, for help in vocational rehabilitation, or for help in meeting the disruption of family living resulting from the long-term hospitalization of the husband. Analysis of such situations reveals patterns of anxiety and guilt that have common characteristics.

The *method* of casework is the interview as the special experience by which the client obtains help for his problems. The caseworker is more concerned with the meaning of this experience to the client, and how it affects his ability to deal with the emotional reactions to his problems, than with transference manifestations. The worker attempts to maintain the real quality of the relationship by identifying and discussing transference distortions, not as such, but as misconceptions about treatment and the worker; helping the client to discuss his uneasiness in treatment as a real reaction to an unknown and threatening experience; avoiding direction and control, or any other procedures that might serve to heighten the client's dependency needs. In dealing with the client's actual problems, the worker tries to help him understand the sources of his anxiety and conflict in relation to the pressure of circumstances that causes them.

Technically, this is done in a great many ways, some of which may be briefly touched upon here. In the first place, the client is given a great deal of emotional support by suitably timed sympathetic and reflective comments. Such support is particularly appropriate for persons facing the anxieties of

actual external pressures. At the same time, the worker helps the client identify those elements in the conflict that arouse anxiety, and to face them through verbal discussion. The problem of character resistance is minimized by focusing attention on current difficulties. Historical material is always brought into the perspective of present reality, including the treatment situation. Resistance to the situation of treatment is usually a problem only at the beginning, and must be carefully discussed in order to allow the client the greatest freedom in bringing out and working through the problems that led him to ask for help.

The worker's attitude in the interview is very similar to that of the psychotherapist. He regards statements made by the client as clues to the psychological realities they conceal. He constantly asks himself, What is the client trying to get at? What is he trying to say? In other words, the worker distinguishes between the stated and the psychological reality. In psychotherapy, the clues point to the underlying dynamic process; in casework, they point past the screen of psychological distortion to the disturbances of feeling in situational response.

In psychoanalytic terminology, casework is a method of psychological treatment concerned with the reality aspects of ego functioning. Its purpose is to stimulate the automatic organizational and integrational impulses of the ego in dealing with reality

problems. It does so by resolving specific conflict responses through interpretation with concurrent emotional support. In its therapeutic attitude, it attempts to create an optimal transference situation, *i.e.*, a positive relationship, and to maintain it, through focus on current material and reality-oriented interpretation, and by avoiding dependency stimulation. It interprets preconscious material, helping to bring out what the client is trying to say but cannot make clear because of anxiety, and also attempts through interpretation to clear up and to allow the client to dispense with the presenting screen of distortion and misconception.

Casework developed under the influence of psychoanalytic concepts. However, it has not remained a poorly drawn imitation of the original model. On the contrary, through a sophisticated professional adaptation of the borrowed material to the endogenous and traditional problems of social work, it has evolved a psychology and a psychological method, *sui generis*. In so doing, it has made it possible to offer psychological treatment services to large masses of people with emotional problems, who are never reached by psychiatry, and never have been. This is an achievement of great significance in the field of mental health. Or, if we can think of psychiatry in the very broad sense, the coming of age of casework represents one of the important advances in the history of psychiatry.

# A STUDY OF RESULTS IN HOSPITAL TREATMENT OF DRUG ADDICTIONS<sup>1</sup>

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Studies of results in individuals brought to the New York Hospital—Westchester Division for the treatment of alcoholism have been reported previously. The same technique has now been employed in an effort to interpret some of the important factors in the personalities of patients brought to this hospital because of the excessive and habitual use of drugs. The present study concerns itself with the results of the treatment and observations made upon 75 patients who constituted the total consecutive admissions between January 1, 1930, and January 1, 1950, because of the uncontrolled use of drugs. In 34 of these patients morphine has been the drug of choice, in 24 barbiturates, and in the remaining 17 other drugs (demerol, heroin, dilaudid, codeine, and benzedrine). The statistical diagnoses were as follows:

Without mental disorder, drug addiction, morphine .....	30
Psychosis due to drugs and other exogenous poisons, morphine .....	4
Without mental disorder, drug addiction, barbiturates .....	19
Psychosis due to drugs and other exogenous poisons, barbiturates .....	5
Without mental disorder, drug addiction, demerol .....	4
Without mental disorder, drug addiction, dilaudid .....	4
Without mental disorder, drug addiction, codeine .....	4
Without mental disorder, drug addiction, heroin .....	1
Psychosis due to drugs and other exogenous poisons, demerol .....	1
Psychosis due to drugs and other exogenous poisons, dilaudid .....	1
Psychosis due to drugs and other exogenous poisons, heroin .....	1
Psychosis due to drugs and other exogenous poisons, benzedrine .....	1
Total .....	75

<sup>1</sup> Read at the 107th annual meeting of The American Psychiatric Association, Cincinnati, Ohio, May 7-11, 1951.

From the New York Hospital—Westchester Division.

Forty of the 75 patients were men and 35 were women, and they all came from middle-class or better than average homes from the standpoint of cultural and educational advantages. They were as a rule from families of average size, 5 being single children, and in only 19 instances were there less than 2 siblings. A review of the preceding 2 generations revealed a significant frequency of instability and maladjustment, with such factors present on both the maternal and paternal sides in 17 patients, 18 with one or more instances of instability on the paternal side, and still another 9 with similar difficulties on the maternal side. Such unstable heritage was present in 44 of the 75 patients.

In regard to the marital status, 12 of the patients had remained single and 63 had married. Eleven of the 63 had multiple marriages, 9 had obtained divorce, 5 separation, 2 had been widowed, and 2 had been common-law marriages. Twenty of the 63 marriages were childless. Of those who had children, there was an average of 2 per patient.

The patients of this group were above average from the standpoint of mental efficiency. The psychology department examined a sample group of 16 of these patients on admission by means of the Wechsler-Bellevue and reported a mean IQ of 113, with a verbal IQ of 116, and a performance IQ of 110. The subtest pattern varied in such a way as to create the suspicion of some organic impairment at this first session. In only 5 patients were tests repeated on form 1 after 6 months, and they showed a mean increase of 10 full IQ points, which is suggestive but not statistically significant. Only 2 of the group had failed to complete at least some part of high school work and 49 had completed 1 to 10 years of the collegiate course. Only 4 reported no occupation, 49 were in the various professions, 24 were housewives, 6 were in business, 1 was a seaman, and 1 a farmer. Recorded religious

leanings indicated that 43 were Protestant, 22 were Catholic, 9 Hebrew, and 1 Quaker.

Constitutionally these patients were nearly evenly divided between the athletic, pyknic, and asthenic habitus with 6 described as dysplastic. Physical findings revealed that 26% possessed marked scarring, or abscesses were still present at the sites of hypodermic injections. It was interesting to note that in 45% of the patients there were one or more operative or traumatic scars, 33% were undernourished, 33% had poor teeth and oral hygiene, 20% showed tremors of the extremities, 53% revealed various other neurological abnormalities, 11% were hypertensive, and 71% revealed diverse other physical abnormalities.

In the vast majority of our 75 patients the use of the drug of choice had been associated with other drugs, and it is interesting to break this down in some detail. Among the group employing barbiturates, 80% also used alcohol, while only 50% of those using morphine also used alcohol, and 48% in the demerol, codeine, dilaudid group also used alcohol. On the contrary, 90% of the morphine as well as the demerol, codeine, dilaudid group also used various other drugs along with their drug of choice, while only 23% of the barbiturate group used any other reported drug. Only 15% of the morphine group, 12% of the demerol, codeine, dilaudid group, and 9% of the barbiturate group used neither alcohol nor any other reported drug.

The average age at which these patients began using drugs was 37.2 years with very little spread in this figure among the 3 groups. The average duration of the use of the drugs was 6.6 years. In the morphine group this was the longest with an average duration of 8.6 years, while the other 2 groups averaged 5.6 years each. The average age upon admission was 43.8 years.

The reasons for taking the drugs, as stated by the patients, may be treated generally as endogenous and exogenous. Such factors as insomnia, restlessness, physical illness, feelings of inadequacy, general maladjustment were mentioned 62 times. Exogenous factors such as death in the family, divorce, financial loss, and business problems were mentioned 16 times. The use of drugs began

in connection with physical illness in 48 patients or almost 70%. Sexual maladjustment was indicated as the etiological factor in 14 of the patients.

The personality traits of these patients have been carefully reviewed. As in much of the other material collected in the study these traits were so strikingly similar regardless of the drug employed that they have been grouped collectively. Traits generally considered as introverted, such as shy, self-conscious, insecure, reserved, etc., were noted 18 times; those considered as extroverted, such as social traits, were noted 10 times; close parental attachment in 26 instances and in 23 of these the attachment was to the mother. Neurotic traits such as anxiety, hypochondriasis, eating problems, obsessions, and compulsions were observed in 35 patients, while 12 revealed traits commonly considered as psychopathic, such as gambling, temper tantrums, and behavior problems. There was only one patient with a history of overt homosexual practice although 19 reported poor sexual adjustment. A history of physical illness in earlier life was obtained in 26, of which 7 were suffering from migraine or allergy. A review of this clinically observed material suggests a limited number of marked personality deviations, with about half of the patients showing a varying number of features that can be considered neurotic. At the time of admission 9 of the 75 patients revealed evidences of a toxic delirium in that they were suffering from auditory and visual hallucinations, and 5 showed a clouding of the sensorium. These symptoms all cleared under treatment.

At present no definite conclusions can be reported from the psychological studies. The implications from the results of those who were tested, however, are of sufficient significance to be reported. In addition to the already mentioned Wechsler-Bellevue with which 16 patients were tested, the Rorschach was given to 18 of the patients at the time of admission. In addition 3 of these were given the Rorschach twice and 4 were so tested 3 times at intervals of 3 months (all by the same psychologist).

Ten of the 12 patients who were seen within the first week of admission revealed a sufficient organic impairment on the Ror-

schach to mask much of their basic personality structure. At the time it could not be determined if this were temporary, on the basis of recent drug intake, or permanent. This finding was considered significant, however, in that it indicated that a psychodiagnostic evaluation of drug addicts on admission might include such a large organic overlay that a valid description of their personality was precluded at that early date. For that reason a plan was established for repeat Rorschachs at scheduled intervals.

As suspected, the complicating organicity diminished on subsequent Rorschachs in a majority of those tested. Only 4 of the original 10 patients still showed organic impairment after 6 months of hospitalization but this again demonstrated the great care required to differentiate between any so-called "addict personality" and organicity in research in this field.

It is suggested from the psychological study that the "addict personality" is psychopathic-like and characterized first of all by an *absence* of healthy resources rather than by the presence of demonstrable pathology. It is a barren, ordinary, inadequate appearing structure although well within reality. The personality is motivated by immature drives for immediate goals and inclined toward impulsive action to reach them. Interests, except self-interest, are shallow with a complete lack of concern or interest in other people. There is a flatness to the affect that may be found in simple schizophrenia and psychopaths with about the only distinguishing feature, the presence of some tension, anxiety, or depression in the addict. These are again not severe. In the men especially some aggression was noted. This was usually directed toward women with a simultaneously weak male identification. Whether there was anxiety, depression, or aggression present, the "addict personality" seemed to be distinguished by its weakness and lack of vitality.

Thematic Apperception Tests were obtained from 12 of these patients and they filled out the Rorschach structure with the concomitant attitudes and values. These tests indicated that these patients felt insecure, sensitive, and inadequate but that they revolted against any authority or demands made upon them.

In order to determine whether such psychological studies may be of prognostic value a standardized psychological procedure has been established to be carried out on every patient admitted to this hospital for the treatment of drug addiction. The time intervals of testing have been established as (1) within the first week following admission, (2) 3 months after admission, and (3) 6 months after admission or at the time of leaving the hospital. The test battery consists of the Rorschach, Wechsler-Bellevue, and the Thematic Apperception Test.

In the management and treatment of these patients, they were cared for in the same physical environment as the patients with psychiatric disorders of a functional nature, and as has been true of our patients under treatment for alcoholism they have soon developed a mutual appreciation of the problems of each other. The benefits of the physical resources of the hospital were combined with the medical and psychiatric therapies, with their therapeutic programs arranged and supervised by a physician to whom each was assigned. At the time of admission each patient was thoroughly examined physically, including laboratory and X-ray studies. An evaluation was made of the mental status and in many instances psychological studies carried out. The addiction drug was gradually withdrawn in 43 of the 75 cases, abruptly in 25, with temporary substitution for the original drug; 7 were already drug free on admission for periods of a few days up to 2 months in 1 instance. Five of the patients using barbiturates had one or more convulsive seizures when withdrawal was too rapid. One patient whose major drug was codeine and another with demerol as the major drug also had convulsive seizures on withdrawal, but in both instances barbiturates had been used as associated drugs. Twenty-six other patients complained of fairly severe withdrawal symptoms. All the patients received vitamins orally and 20 parenterally. Sixteen patients received hypertonic glucose intravenously and 7 patients repeated doses of 10 to 15 units of insulin. As soon as the physical condition permitted, all the patients were entered upon a program consisting of physiotherapy, including hydrotherapy and massage, occupational therapy, supervised social activities,

and physical education. In psychotherapeutic interviews their problems were reviewed, their assets as well as their liabilities evaluated as were their capacities for better adjustment. During the closing 4 to 6 weeks of hospitalization, these patients were returned to their extramural environments by a series of graduated visits either to the home or place of business or both. In some instances the patients commuted to their work for a few weeks while still resident in the hospital. Several patients took advantage of the opportunity to return for occasional interviews with their therapists.

Sixty-nine of the 75 patients came to the hospital voluntarily and the great majority of these made their own petitions for certification by the court as inebriates for a period of care and treatment of 6 months to a year. In 5 patients the pressure of mental illness of psychotic proportions required that they be admitted on regular court certification or a physician's certificate, as mentally ill. The average period of residence in the hospital of the 75 patients was 3.3 months.

A follow-up study has been carried out and is statistically classified as follows:

Relapsed and unimproved.....	11	{ Morphine ..... 6 Barbiturates ..... 1 Other drugs..... 4
Managing better .....	12	{ Morphine ..... 5 Barbiturates ..... 5 Other drugs..... 2
Abstaining .....	15	{ Morphine ..... 7 Barbiturates ..... 4 Other drugs..... 4
Died after leaving the hospital (2 suicides).....	14	{ Morphine ..... 8 Barbiturates ..... 5 Other drugs..... 1
Not heard from since leaving the hospital.....	23	{ Morphine ..... 8 Barbiturates ..... 9 Other drugs..... 6
Total .....	75	

The average duration of hospital residence of the 15 who are abstaining was 5.4 months, which is considerably longer than the general average of 3.3 months for all the patients studied. Furthermore, of the 15 patients now reported as abstinent, 1 had remained so for 14 years, 2 for 5 years or over, 3 for

3 years or over, 5 for 1 year or over, and 4 slightly under 1 year.

Brief abstracts of the case histories of 3 of these patients will assist in illustrating the above findings.

CASE 1.—A professional man was admitted at the age of 52 on his own petition for inebriate certification. He was of Irish-Catholic stock and the second of 3 siblings born to a hypochondriacal father and a mother who was subject to recurrent periods of inordinate depression. He was said to have always been quite dependent upon his mother and later, when he married, upon his wife. He had always felt physically inferior and was prone to have mood swings. There were no children. Never consistently successful in the practice of his profession, he was assisted by his wife in the family support. At about the age of 30 he began to use various barbiturates, stating that he required them because of periods of depression that did not reach psychotic proportions and an inability to face disconcerting or disagreeable facts. For about 9 years prior to his admission he had been using chloral hydrate gr. xx, bromides, and alcohol to excess leading to 3 previous hospitalizations. In the year prior to his admission here, he had been taking daily doses of secenal gr. 6, nembutal gr. 1½, and elixir of phenobarbital drams 2½ in addition to his habitual intake of the preceding 9 years.

Physical examination following admission revealed an asthenic, poorly nourished male with un-

steady gait. His pupils reacted poorly to light, his heart was enlarged, and there was a marked arcus senilis. He was inclined to dramatize himself, talked of working under tension, of being given to worry, and self-criticism. His treatment consisted of gradual withdrawal, parenteral vitamins, a program utilizing the therapeutic facilities of the hospital and psychotherapeutic interviews. After 5 months, he had gained little insight, was actively

and passively resistant to the treatments and insisted upon his release. He was discharged only to return to his former habits and his death was reported slightly over a year later, still using drugs.

This is a case of a markedly dependent man subject to mood swings similar to those experienced by his mother. His assets were almost exclusively intellectual and in the 5 months of hospitalization he was unable to resolve his dependency or to use constructively the limited assets he did possess. In view of the mood swings, his personality was somewhat more pathological than most but the absence of healthy resources was outstanding.

**CASE 2.**—This 26-year-old professional man of southern European Catholic descent was admitted to this hospital on his own petition for inebriate certification for the treatment of an addiction to demerol. He was the sixth of 6 siblings born to a mother described as neurotic and unstable and a father who had died when the patient was still an infant. He had always been fussy over food with frequently recurring difficulties with his stomach. He had since adolescence reacted obsessively to dirt and body odors. He was inclined to worry and was at times impulsive in his behavior. He was such at the time of his admission. For 9 months prior to admission he had been taking up to 2,000 mgm. of demerol by hypodermic injection to relieve gastric spasm. He was also taking seconal, up to 18 gr. a day.

Physical examination revealed a well-nourished male with no outstanding abnormal physical findings. The mental examination indicated a tense, whining, rebellious, critical, hypochondriacal young man who talked under pressure and exhibited little insight into any emotional factors concerning himself. The psychological department reported an IQ (Wechsler-Bellevue) of 129, and, on the Rorschach, an emotionally immature man with lack of identification with his masculine role, anxiety concerning heterosexuality, self-doubt and tension, suggesting a psychoneurotic personality.

His treatment consisted of a gradual withdrawal of demerol over a period of 9 days. He complained of withdrawal symptoms in the nature of formication, tremulousness, sensations of heat and cold, abdominal pain, and stiffness of muscles. As soon as his physical condition permitted, he was placed on a program including hydrotherapy, physical education, occupational therapy; and psychotherapeutic interviews were carried out throughout his 6 months' residence in the hospital. Particularly during the later months in the hospital he was receptive to therapy and seemed to have mobilized his resources. About a year after his discharge, he developed organic gastric pathology, underwent surgery followed by a prolonged convalescence. About a year and a half after discharge, he married and resumed the private practice of his profession but became anxious and tense and began using demerol. He was promptly given a short period of hospitalization while the drug was again withdrawn. Shortly after this his wife gave birth to a baby. He resumed his practice and for a year has felt well without tension and anxiety and has remained abstinent.

In this patient we found a personality with many psychoneurotic features. Statistically it develops that 12 of the 15 patients who have been reported as abstinent revealed a predominance of psychoneurotic traits in their personality study.

**CASE 3.**—A 43-year-old Protestant housewife of Scotch-Irish descent was admitted on her own petition for inebriate certification. She was the fourth of 5 children, with a father described as a stern disciplinarian. A feeding problem as a baby, she was felt by her family to be emotionally immature and narcissistic. Her stern father forbade dates until the age of 19. She graduated from high school, married a professional man, and has two children. About the age of 34 she began using morphine for the pain of a kidney stone, and has been taking up to gr. IV a day by hypodermic injection. In addition she has been accustomed to using nembutal, seconal, chloral hydrate, paraldehyde, codeine, and demerol in amounts up to 1,500 mgm. a day.

Admission physical examination revealed a pyknic woman with dilated pupils and several missing teeth. She was rebellious and resentful, hypochondriacal and jittery, and blamed her physical health and her husband's lack of understanding for her addiction. Treatment consisted of gradual withdrawal over 12 days, using morphine, demerol, and seconal. Supportive therapy with intravenous hypertonic glucose, insulin, and vitamin B was employed. During 3 months in the hospital she took part in the planned program of occupational therapy, physical education, physiotherapy, and social events. In psychotherapeutic interviews an attempt was made to bring into focus for the patient some of her immature attitudes and to make constructive plans for the future. She remained self-centered and critical, although able to verbalize some insight, and finally insisted on leaving the hospital to return to her family. She remained abstinent during the follow-up period of a year, and is managing her life better.

This woman was unable to capitulate and accept her need for prolonged treatment, but she seems to have achieved some stability through her experience. She was immature and dependent with no strong assets in her personality.

These 75 patients treated between January 1930 and January 1950 are typical representatives of the economic, social, and intellectual levels of all patients admitted to this hospital. The only other condition under which they may be considered as selected is that one of the requirements for admission is a voluntary wish to help themselves. This was true in all except the 5 instances that have been mentioned. The fact that in 48 patients the initial use of drugs had been associated with physical illness and in most instances on prescription indicates a need for some thought and consideration as to the freedom with which they are employed and the duration of their use.

The results of prolonged, carefully supervised and active hospital courses of therapy still point to only a moderate degree of success in bringing about an adjusted, abstinent state in these patients with drug addictions. The clinical studies of the personalities of these patients have been corroborated by the psychological findings of an absence of healthy personality resources.

### SUMMARY

1. A study has been made of 75 patients admitted to the New York Hospital—Westchester Division between January 1, 1930, and January 1, 1950, for the treatment of drug addiction.
2. The primary drug of addiction was morphine in 34, barbiturates in 24, and other drugs such as heroin, dilaudid, codeine, and demerol in 17 cases.
3. A statistical review of hereditary and environmental factors is presented.
4. Methods of hospital management have been discussed.
5. A plan for a standardized psychological survey has been presented.
6. Follow-up studies revealed that 15 have remained abstinent following hospitalization for 1 to 14 years and that, as a result of the treatment, 12 more are managing better, indicating that about 36% seem to have been benefited.

### DISCUSSION

DR. VICTOR H. VOGEL, M. D. (Lexington, Ky.).—The author's experience in the treatment of drug addiction parallels closely our experience at the U. S. Public Health Service Hospital in Lexington, where we have seen 20,000 addicts in 16 years. Particularly in treatment results, which are difficult to evaluate for lack of valid follow-up information, there is close correlation. I do not share the authors' possible apology for reporting only a moderate degree of success, considering that drug addiction is a chronic disease with a tendency to relapse. If treatment results are compared with those in other chronic or recurrent diseases, such as tuberculosis, arthritis, hypertension, diabetes, or cancer, results in this field are good. Furthermore, critics unreasonably consider as complete treatment failures addicts who stay off drugs for an indeterminate period but subsequently relapse. Temporary or periodic freedom from addiction is frequently an economical therapeutic result.

The authors' patients in general use the same drugs ours do, in about the same proportion, show-

ing considerable incidence of barbiturate addiction. There is an unexplained difference in the incidence of psychosis in the authors' patients, numbering 13 of 75, whereas only 2% of our morphine addicts were considered to be psychotic. The authors report a somewhat higher ratio of men to women—2 to 1, compared to about 4 to 1 at the Lexington hospital. Our patients also have an average IQ of slightly above 100. It is noted that the authors' patients used alcohol and barbiturates together more frequently than barbiturates and morphine. Addiction-prone individuals frequently can leave alcohol alone by taking opiates or vice versa, whereas there appears to be some mutually facilitating effect in the use of barbiturates and alcohol. The use of multiple opiate drugs by the same patient usually represents an inability to get the drug of choice, although it shows a cross-dependence and cross-tolerance between drugs of the opiate group.

The patients at Lexington apparently are somewhat younger than the New York patients. Our average age until recently was about 37 years, compared with 44 years in New York, the age when patients started to take narcotics. The last year and a half have seen a substantial increase in the number of teen-age addicts seeking treatment, which has driven our average age down to 26 years; although our increase in teen-age patients, great as it is, does not reflect the extremely great incidence of addiction reported by newspapers and public officials in New York. As in the present study, our Lexington patients show a preponderance of psychoneurotics and psychopaths. I wonder if the authors, who report only one patient of overt homosexuality, uncovered all such cases, since our experience shows a higher incidence, which one would expect in view of the fact that one of the known effects of opiate drug addiction is to reduce sexual activity, both heterosexual and homosexual. Homosexuals frequently take opiates for that reason.

Regarding evidence of organic impairment shown by the Rorschach, we test our patients only after withdrawal, but even so apparently find evidence of organic impairment less frequently than the present paper reports. Can it be that deterioration reported was more attributable to conditions such as chronic alcoholism rather than to other drug use? The authors rightly infer that when convulsions are seen during withdrawal they are due to abstinence from barbiturates and not to the opiate drugs. The authors are fortunate that the majority of their patients were committed, inasmuch as there is a great tendency among voluntary addict patients to demand release prematurely against advice. About half of our Lexington patients are federal prisoners, so our average duration of treatment is about the same as in the New York study, that is, between 3 and 4 months. The results in New York confirm our opinion over the years that the greater the duration of treatment up to 5 or 6 months, the better the results are likely to be. The authors are to be congratulated for their effort to evaluate the results of treatment in a field where a pessimistic view is often taken uncritically.

## CLINICAL NOTES

### EXPERIMENTAL BROMIDE INTOXICATION

#### A CRITICISM

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Two articles on experimental bromide intoxication, one by Millikan and Paul(3) and the other by Jellinek *et al.*(1), are open to criticism, for, from faulty analysis of their evidence, the authors have arrived at conclusions that minimize the dangers of this drug.

Millikan and Paul gave sodium bromide to 36 patients on a neurological service for periods varying up to 60 days. The result was that 16 patients showed no clinical signs of bromism, 11 developed "bromide intoxication"—what would better be called *simple* bromide intoxication(2)—while 9 became delirious.

Millikan and Paul display a curiously negative attitude toward the bromide psychoses. They ask skeptically, "Is there such a thing as bromide psychosis?" By this question, however, they do not mean to doubt that bromide can cause mental derangement. They mean only that psychoses from this drug cannot be distinguished clinically from those found in other toxemias, and so they don't like the term "bromide psychosis." They would prefer to speak of "toxic delirium due to bromide," but since this is cumbersome they grudgingly use the term bromide psychosis, always employing quotation marks to remind you that they think there really isn't "such a thing."

Without going into the question of whether bromide delirium differs clinically from other deliria, I submit that even if Millikan and Paul were right in their claim of indistinguishability it still would be wise and proper to speak of "bromide delirium" rather than "toxic delirium due to bromide." If meningitis due to the pneumococcus is pneumococcal meningitis, delirium due to bromide is bromide delirium. To argue otherwise is more than just poor terminology; it is a weapon in the hands of those (and there are some) who for mer-

cenary reasons maintain that there is no such thing as a bromide psychosis. Here is an example of the power of language to mislead. Millikan and Paul agree that bromide taken to excess can cause delirium; they themselves have produced some excellent cases of bromide delirium experimentally. But their unjustifiable mistrust of the phrase "bromide psychosis" and the skepticism with which they ask "Is there such a thing as bromide psychosis?" can mislead one into conclusions quite at variance with their own evidence.

*The Case of D. K.*—Millikan and Paul make much of a case (D. K.) sent into the hospital as a bromide psychosis, in which, after recovery, they sought to reproduce the psychosis by giving bromide. The psychosis did not reappear, which proves, they say, that bromide could not have been its cause. But, as I shall show, there is doubt as to whether Millikan and Paul duplicated the original conditions of the case, and therefore their exoneration of bromide is hasty and ill considered.

The case is of a girl of 15 who was admitted to hospital in delirium with a serum bromide level of 132 milligrams percent. Several days after she got well, Millikan and Paul gave her 60 grains of sodium bromide a day for 13 days, at the end of which the serum bromide level was 177—45 points above the admission level—but there was no return of delirium. They felt they had amply proved that the psychosis had been due to something other than bromide. On this point they say: "This case might easily have gotten into the literature as one of bromism, although the admission serum bromide level was only 132. . . . This case shows how easy it would be . . . to report 125 milligrams percent or lower (depending on the time at which the patient was seen) as the level of bromide in the blood sufficient to cause intoxication."

But Millikan and Paul have overlooked 2 possibilities that invalidate their belief that they duplicated the original conditions of the case. In the first place they have failed

to consider that the child might have stopped taking bromide some time prior to admission. Since they report that "no adequate history could be obtained," we must consider all the possibilities. One of them is that the bromide was stopped, let us suppose, 2 weeks before admission, when, we will again suppose, the serum bromide level was 300 and not 132. In that case, if you want to reproduce the original conditions you must give enough bromide to attain a level of 300.

In the second place Millikan and Paul have overlooked another time factor, and that is the length of time that a given concentration of drug has been maintained. A poison does harm in proportion to the length of time it has been acting. A man may get drunk with impunity, but if he stays continuously drunk long enough he will suffer. There are people who can tolerate a serum bromide level of 300 for a day, or maybe a few days, but who become delirious because, having reached that level, they maintain it too long. How, then, can Millikan and Paul be sure that they duplicated the original conditions in the case of D. K.? The child came into the hospital with a serum bromide level of 132, but we don't know how long she had maintained that level (or higher levels) before admission. Maybe she had maintained it for a month. If so, one is not duplicating the original conditions when one gives bromide to a level of 132 (or even 177) and then stops, for when one stops the bromide level will fall; having reached the level, one must maintain it for a month.

Millikan and Paul may indeed have duplicated the original conditions. But, because of their 2 oversights, they can't be *sure* they have. They must therefore be charged with having jumped the gun when they declared

bromide not guilty of having caused D. K.'s delirium.

In the second article Jellinek too erred in overlooking the factor of the duration of a given level. He and his associates gave bromide to normal people and to chronic psychotic patients for 8 weeks at the most, and though in some cases the serum bromide level reached to "well over 200" the signs of bromide intoxication were negligible. They conclude that "normal individuals are not liable to develop toxic symptoms at serum bromide levels between 100 and 200 mg. per 100 cc. and that mental hospital patients . . . are only slightly more susceptible to bromide effects at comparable levels." But, like Millikan and Paul, they have failed to consider that it is a question not only of what the bromide level is, but of how long it has been maintained. People who take bromide do not always stop after 8 weeks, and a man with a level of 200 who has just reached that level is not to be compared with one who has been maintaining that level for months. The exoneration of levels below 200 by Jellinek and his associates is meaningless.

It is bad to overestimate the dangers of a drug, but it is worse to *underestimate* them. The articles of Millikan and Paul and of Jellinek and his associates are mischievous in so far as they may mislead the reader into doubting or minimizing an established fact, namely, that bromide can cause mental derangement.

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## COMMENT

### TERMINOLOGY

In the last preceding issue of the JOURNAL appeared an article by Bowman and Rose dealing with the terms "psychosis," "psychoneurosis," and "neurosis." This paper was read at the annual meeting of the American Psychiatric Association in May of the present year. Editorial comment upon it was postponed to this number of the JOURNAL with the intent of continuing to draw attention to the importance of the authors' thesis.

The proposal of Bowman and Rose that the terms quoted above have outlived their usefulness and should be dropped from the psychiatric vocabulary may seem to many physicians not only revolutionary but fundamentally disturbing, so entrenched have these terms become in common usage. In psychiatric discussions we repeat them daily, parrot-like, as if they could be taken for granted as representing ultimate facts. In doing so we forget that nature did not coin these words, that they were invented by man to represent rather superficial clinical observations. We forget too not only that nature abhors a vacuum but also that nature has no predilection for sharply defined boundary lines.

An extreme advocate of metes and bounds in psychiatric diagnosis was Yellowlees, who wished to raise a nosological wall between neurosis and psychosis. "Neurotics, generally speaking, are made, not born . . . psychotics are born, not made." Insight, according to Yellowlees, is the test by which to distinguish neurosis from psychosis (Lancet, Editorial, Aug. 19, 1939). In the same editorial by way of contrast Symonds is quoted: "There is in my view no essential difference between a neurosis and a psychosis except that of degree." And Mapother and Lewis: "The distinction between neurosis and psychosis is at times convenient, but without substance."

The British Medical Journal in an editorial (Mar. 27, 1943) seeks to get down to cases with the following definition: "A psychoneurosis in the strict sense of the term only

exists when the individual makes use of the symptoms of physiological disturbances [neurosis] in a social way, either to disguise from himself that he is afraid or to escape from the dangerous situation."

We may profitably turn back to two papers by Myerson on "Neuroses and Neuropsychoses" (Am. J. Psychiat., Sept. 1936 and Jan. 1938) in which he endeavored to show, and succeeded in doing so, "that the neuroses span the bridge between what is conventionally called the normal mental states and certain psychotic states." He demonstrated by means of a case history "the transition from neurosis to psychosis and back again to neurosis," in another patient a progression from hypochondriasis to a psychosis diagnosed as dementia praecox, which in turn gave place to a neurotic state, a third case in which a typical depression "passed imperceptibly from the stage of psychosis into that of neurosis" that continued as a chronic disability. In another patient the succession or association of symptoms showed that "the boundary between neurosis and psychosis is entirely artificial."

On the basis of many comparable observations Myerson concluded: "To the question which comes up whether the term 'psychosis' has any important value for psychiatry at the present time, the logical answer seems to me to be—No."

The inconsistency in the use of psychiatric terms with built-in meanings comes strikingly to the front in the administration of general hospitals that lack psychiatric services. They may permit the admission of a nervous or "neurotic" patient but refuse admission to the "psychotic." Here the discrimination may be based entirely on the apparent mildness or severity, *i.e.*, conspicuousness, of the symptoms. Thus a mild depression that by textbook definition is strictly a psychosis gains admission under the label "neurosis" to the hospital that supposedly rules out "mental" patients.

Many of the clinical data that speak against upholding the arbitrary boundary lines between mental conditions that for the time being have been called functional, and in particular between "neuroses" and "psychoses," were reviewed by the writer in a contribution to the Proceedings of the Inter-State Postgraduate Medical Assembly of North America (1935). To express various symptom groups certain adjectives may still be useful, such as "neurotic," "affective," "schizoid," "paranoid," etc. But these terms have only relative diagnostic value dependent on the pureness or preponderance or continuance of the symptom pictures those adjectives stand for. But the term "psychosis" or "psychotic" (a bowdlerized substitute for the old word "insane") is not only useless but directly misleading. Strictly speaking a

psychosis is any psychic process or condition, while in psychiatric usage it has come to mean a morbid psychic state. But a psychoneurosis is a morbid psychic state and therefore a psychosis. Thus the latter term simply means any disordered mental state of whatever type or degree of severity and can have no specific or differential diagnostic significance. Why then should this word continue to clutter our overcrowded psychiatric vocabulary?

We can hardly disagree with Bowman and Rose that "the limitations of our scientific understanding in the field of psychiatry are nowhere more evident than in our use of diagnostic labels that are vague and ambiguous in meaning and have little reference to the actual clinical conditions that they purport to describe."

## NEWS AND NOTES

**FIRST INTERNATIONAL CONGRESS OF NEUROPATHOLOGY.**—The Congress will take place in September 1952 in Rome, the first of its kind. President of the Congress is Dr. Mario Gozzano of Rome, and there are also five Honorary Presidents: Dr. U. Cerletti (Italy), Dr. J. C. Greenfield (United Kingdom), Dr. G. B. Hassin (United States), Dr. L. Lhermitte (France), and Dr. O. Vogt (Germany). Dr. Armando Ferraro of New York City is Secretary General.

The program will last six days, beginning on September 8. Topics chosen at the preliminary meeting of the chairmen of the various national committees (Paris, May 30 and 31, 1951) include pathology of demyelinating diseases, of vascular diseases, in schizophrenia, of mental deficiencies, and of senility. Special histopathologic and histochemical techniques will be demonstrated.

Neuropathologists, neurologists, psychiatrists, and pathologists are cordially invited to attend. The registration fee for active membership in the Congress will be \$15.00. For additional information write to the chairman of the United States national committee, Dr. Joseph H. Globus, 960 Park Avenue, New York City.

**RESEARCH AWARD ANNOUNCED.**—The National Association for Mental Health, Inc., announces an award of \$1,000 for the best report of clinical research that will advance our knowledge and understanding of adolescents and of the ways in which we can help them in their social and emotional adjustment. Entries will be due on June 30, 1952, and the prize will be awarded in February 1953.

The Award Committee consists of Dr. George E. Gardner, chairman; Dr. Abraham Z. Barhash, Dr. Othilda Krug, Dr. Fredrick C. Redlich, and Dr. Exie E. Welsch.

For particulars as to eligibility, type of report, etc., write to the National Association for Mental Health, 1790 Broadway, New York 19.

**ITALIAN ASSOCIATION OF PSYCHIATRY.**—This Association is holding its 24th meeting

in Taormina (Sicilia) from September 29 to October 3, 1951. The program is divided into two parts, lectures on psychosurgery and on the modern technique of psychopathological research in the adult and developmental periods. Trips to Catania, Etna, Siracuse, Messina, and Reggio Calabria will be included in the program.

**FRENCH PSYCHIATRIST HENRI EY IN MONTREAL.**—The Board of Directors of the Prevost Sanatorium, Cartierville, Quebec, announces that Dr. Henri Ey, psychiatrist-in-chief of the Bonneval Psychiatric Hospital of Bonneval, France, and an authoritative exponent of today's psychiatric trends in France, will deliver in the month of October a series of 12 lectures on general topics related to psychiatry.

These lectures will be given at the Prevost Sanatorium as listed below:

Oct. 3. Psychiatry and the evolution of medical sciences.

Oct. 5. Doctrinal trends of today's psychiatry.

Oct. 8. Organo-dynamic conception of psychiatry.

Oct. 10. Evolution of ideas on schizophrenia.

Oct. 12. The thought and personality of the schizophrenic.

Oct. 15. "Primary delusional experiences."

Oct. 17. Chronic delusional organizations.

Oct. 19. The neuroses.

Oct. 22. Pathological anxiety.

Oct. 24. Hysteria and psychosomatic medicine.

Oct. 26. The theoretical and practical problems of psychoanalysis.

Oct. 29. Necessity and limitations of psychotherapy.

Off-schedule lectures: Oct. 11, Psychiatry and morals. Oct. 18, French psychiatry of the 20th century.

Physicians wishing to attend the lectures should write to the Sanatorium Prevost, 4455 Gouin Boulevard West, Cartierville, Quebec. An interpreter will be present.

**JOURNAL OF CLINICAL AND EXPERIMENTAL PSYCHOPATHOLOGY.**—Volume 12 of this quarterly has been designated as the van Ophuijsen Memorial Volume. The first number, January-March, 1951, contains a eulogy delivered at Dr. van Ophuijsen's funeral, a brief sketch of his life, and his

portrait. This outstanding psychiatrist died in 1950, the same year in which he was named director of the Creedmoor Institute for Psychobiologic Studies and editor of the journal that now honors him by this volume.

The leading article in this issue is concerned with the endocrinologic orientation to psychiatric disorders; it is in six parts, the first of which is a contribution by Dr. van Ophuijsen introducing the subject. The remaining parts deal with histamine and sex steroid biochemotherapy, results of this therapy in schizophrenics, the pathogenesis of certain psychiatric disorders, and somatologic perspectives in psychiatric research. Dr. Arthur M. Sackler is editor-in-chief of the journal; Dr. Felix Marti Ibañez is international editor.

**DEATH OF DR. LUCIEN BOVET.**—As the result of an automobile accident Dr. Lucien Bovet died in the cantonal hospital in Geneva July 23, 1951, Madame Bovet having also met her death in this accident. In Dr. Bovet's death Switzerland has lost one of her most brilliant psychiatrists, a member of the medical faculty at the University of Lausanne, and consultant of the World Health Organization. He had interested himself particularly in child psychiatry and juvenile delinquency. Dr. Bovet's remarkable work on the psychiatric aspects of juvenile delinquency was completed this year under the auspices of W. H. O., a review of which will shortly appear in this JOURNAL.

**THE SLEEP CURE IN THE U.S.S.R.**—*Médecine et Hygiène* (Aug. 15, 1951) gives some details of the sleep cure currently in extensive use in the U.S.S.R. Authors reporting this technique insist that the state induced is a normal sleep and not a narcosis, different thus in their view from methods utilized in French-speaking countries. In further contrast the hypnotic effect is extended to 20 or 25 days as compared to 5 to 7 days in France. Barbiturates and allied drugs are used together with "means of conditioning" such as the rhythmic sounds of a metronome. It is stated that an approximately physiological sleep of 18 to 20 hours a day is produced.

While in France narcotherapy is used only in severe conditions such as acute manic or refractory anxiety states it is employed in the U.S.S.R. in a much broader field including many ordinary psychosomatic conditions such as gastric or duodenal ulcer, hypertension and other vascular affections, neuralgias, causalgias, etc.

These new theories will deserve attention, but as the reporter in *Médecine et Hygiène* remarks, "It would be necessary to verify the results reported by the Russian school."

**MASSACHUSETTS SEMINAR IN NEUROLOGY AND PSYCHIATRY.**—A review course in basic neurology and psychiatry under the auspices of the Metropolitan State Hospital and the Psychiatric Training Faculty of Massachusetts, Inc., will take place at the Metropolitan State Hospital every Monday (2-8:30 p.m.) from October 1, 1951 to December 3, 1951, and from March 3, 1952, to May 5, 1952. Dr. William C. Gaebler is superintendent of the Hospital.

**CENTRAL NEUROPSYCHIATRIC ASSOCIATION.**—This group will meet in Minneapolis and St. Paul, October 19 and 20, 1951, with headquarters in the Hotel Nicolle, Minneapolis. The Minnesota Society of Neurology and Psychiatry is host to the Association.

**NAVAL WAR COLLEGE.**—In a new one-to-three-years course of Advanced Study in Strategy and Sea Power, now being offered at the Naval War College at Newport, R. I., there is incorporated a stress on the social sciences. A number of political scientists, sociologists, psychologists, and related scholars will be invited to the War College to give short, intensive seminars.

**DR. OVERHOLSER HONORED.**—Dr. Winfred Overholser has been named Chevalier in the French National Order of the Legion of Honor for "services rendered to the progress of medical science in the field of psychiatry and for his outstanding contribution to international scientific cooperation." Dr. Overholser served as Vice-President of the First World Congress of Psychiatry held in Paris in September 1950.

## BOOK REVIEWS

STUDIES IN PREJUDICE. (New York, Harper & Brothers, 1949-1950.) 5 VOLS: (1) REHEARSAL FOR DESTRUCTION, by Paul Massing. \$4.00. PROPHETS OF DECEIT, by Leo Lowenthal and Norbert Guterman. \$2.50. (3) DYNAMICS OF PREJUDICE, by Bruno Bettelheim and Morris Janowitz. \$3.50. (4) ANTI-SEMITISM AND EMOTIONAL DISORDER, by Nathan W. Ackerman and Marie Jahoda. \$2.50. (5) THE AUTHORITARIAN PERSONALITY, by T. W. Adorno, Else Frenkel-Brunswick, Daniel J. Levinson, and R. Nevitt Sanford. \$7.50.

Five volumes in the *Studies in Prejudice* series sponsored by the American Jewish Committee appeared in the course of 1949 and 1950. This project represents a significant contribution to the social sciences and has important implications for psychiatry. The underlying research has been executed by teams of sociologists, psychologists, and psychiatrists, obviously experts in their fields. The emphasis in these early publications rests for the most part on individual dynamics, the question of group dynamics being reserved for later investigations.

The manner in which anti-Semitic attitudes can be nurtured and manipulated for political purposes is exemplified in the history of Germany. In *Rehearsal for Destruction*, Dr. Massing traces the movement from 1869 to 1914, as it waxed and waned with socioeconomic and political cycles, from initial emancipation of the Jews in 1869 through recurrent waves of anti-Semitism, to spurious quiescence in the era preceding World War I. Here, in the course of 4 decades, the terrain was cultivated and the seed planted for the totalitarian garden of Nazism. Gains were achieved by the Jews at a time of economic and national buoyancy. They were lost during periods of depression and national calamity when it was easy to play upon the apprehensions of groups, to provide them with a scapegoat, and to embellish the racial myth. In Germany the most implacable enemies of the Jews proved to be members of higher-educated classes, urban rather than rural groups. The periods when such prejudice was at its height coincided with the manipulation of racist feelings by interested cliques—political, religious, and professional. In Germany the forces that bred and used anti-Semitism were stronger and resistance to them was weaker than obtained in England and France. Amidst unprecedented industrial, technical, and scientific advances, Germany retained whole blocks of the precapitalist, basically feudal social structure, its institutions and its thoughts. This made difficult the development of a bourgeois society patterned in the liberal tradition, capable of taking power and wielding it intelligently. Elements of reaction and elements of social rebellion fashioned the dual role of anti-Semitism as a political tool and a confused expression of social

protest. The explosive potentialities of this duality have been inscribed on the pages of history.

In *Prophets of Deceit*, an effort is made to identify the social and psychological strains of agitation by means of isolating and describing its fundamental themes, techniques, and appeals. The authors show the extraordinary consistency of the output of recent American demagogues, regarded by most people as "crackpots," and suggest that the conventional image of the agitator is not a true portrait. Because the agitator works upon unconscious mechanisms, he has a potential effectiveness upon American society that cannot be disregarded. He manipulates his audience by activating their most primitive and inchoate reactions to the present social order. Taking advantage of the weaknesses of that order, he intensifies his listeners' sense of bewilderment and helplessness, evokes the specter of innumerable dangerous enemies, and whips up aggressive and retaliatory drives. The mechanisms by which he translates uncertain feeling into specific belief and action are discussed and exemplified in this book. This is a timely and important exposé.

*Anti-Semitism and Emotional Disorder* incorporates an interesting application of psychoanalytic theory to social phenomena. It is based on a heterogeneous series of 40 patients subjected to intensive psychotherapy. They were selected because of definite evidence of anti-Semitism. Though personality disturbances varied widely, these patients had much in common. Their symptoms were vague and relatively amorphous. They complained of insecurity, loneliness, etc., but showed no genuine depression. The background was one of anxiety, confusion of the concept of self, unsatisfactory interpersonal relations, fear of but urge toward nonconformity, impaired reality adaptation, and lack of any consistent value system or well-developed conscience. These factors were dynamically interrelated within the personality and the soil for their emergence could be found at an early age—in an atmosphere of hostility in the home, with parental coolness and discord and rejection of the child by one or both parents. Suffering from loneliness and emptiness, these individuals tended to reject themselves, to envy others, and to build up defense mechanisms of which anti-Semitism is one. Anti-Semitism is not only a psychological phenomenon, it is a social manifestation, the apogee of social anxiety emanating in part from the intense economic and social competitiveness of society. The Jew serves as a culturally provided projection screen. Anti-Semitism is thus a symptom of social illness, to be attacked not in isolation but in connection with other social ills to which it is related.

In *Dynamics of Prejudice*, the anxieties and attitudes toward minority groups were studied via intensive informal interviews in a cross section of the younger male urban population, i.e., a sample of veterans living in a large American city. Approx-

mately 60% of the total group displayed some measure of intolerance toward Jews and over 90% displayed anti-Negro attitudes. Certain factors seemed to be important determinants of intolerance. One of these involved subjective feelings of deprivation, insecurity, and not belonging, dating back to the early years of life. Another was the "social mobility" of the individual, mostly a downward course but sometimes even a stationary position or an exceedingly rapid rise. The authors suspect that intolerance becomes a more serious problem when large groups become downwardly mobile owing to changes in the structure of society. The individual's evaluation of his economic past and future correlates statistically with tolerance and intolerance—optimism with the former, fearfulness with the latter. Also correlated with tolerance is stability in religious and political affiliations together with acceptance of institutional demands and other phenomena closely related to the individual's relative control over his instinctual tendencies. This study points up the complexity of the problem of racial intolerance, in origin neither purely psychological nor purely social but serving as one outlet for hostility. Minority groups will continue thus to serve as long as personality structures remain poorly integrated, first because of upbringing and later because of the tension created by economic insecurity and frustration.

*The Authoritarian Personality* is a weighty tome of more than 1,000 pages. A great amount of co-operative research went into its making. On the premise that a correlation exists between personality traits and the phenomenon of prejudice, the contributors developed at the questionnaire level objective tests of "ethnocentrism" (racial and in-group bias), politico-economic attitudes, antidemocratic tendencies, fascist potentialities, etc. They checked and amplified their findings with clinical data procured in individual interviews, various projective tests, and observations on specific groups, among them psychiatric patients and a prison sampling. There emerges from this research evidence of the existence of an authoritarian personality, environmentally and culturally determined. This personality combines the ideas and skills of a highly industrialized society with irrational or antirational beliefs. The authoritarian is both enlightened and superstitious, individualistic yet fearful of nonconformity. He is ambivalent toward power and authority, and his reaction patterns are alike in a great variety of areas ranging from family and sex adjustment and relationships to people in general, to religion and social and political ideologies. Anti-Semitism and antidemocratic trends correlate significantly with a psychological background in which the parent-child relationship has been basically authoritarian and exploitive. Social adjustment is achieved only by the expedient of subordination and obedience. In the psychodynamics of the authoritarian character, part of the subject's aggressiveness is absorbed and turned into masochism, and part is left over as sadism, which seeks an outlet in those with whom the subject does not identify. Stereotypy, heavily libidinalized, is typical of the authori-

tarian, as are deep compulsive character traits. Conventionality, rigidity, repressive denial, and the ensuing breakthrough of weakness, fear, and dependency are other aspects of the same fundamental pattern.

In this *Studies in Prejudice* series, important groundwork for understanding the problem of minorities, of religious and racial intolerance, indeed of totalitarian movements themselves, has been accomplished by the contributors. In the light of their findings, it is easier to comprehend the futility of rational argument and the need for getting at etiological factors that lie in the cultural atmosphere of modern societies and the deep psychological conflicts of individuals and groups.

MARY B. JACKSON,  
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VALUES AND PERSONALITY: An Existential Psychology of Crisis. By *Werner Wolff, Ph.D.* (New York: Grune & Stratton, 1950. Price: \$4.75.)

Reading Werner Wolff's *Values and Personality* one is reminded of the yoke's conundrum that runs: "What is it that swims in water, hangs on the wall and is painted green?" The answer is—a herring. You are supposed to inquire, "Why painted green?" and the answer is: "Oh, that's to make it harder."

The subtitle of *Values and Personality* is "An Existential Psychology of Crisis," and the *existential* part seems to serve no other purpose but "to make it harder." Of course the author is persuaded that he has created a new psychology, distinguished from and superior to both experimental and depth (Freudian) psychology. But in effect he has only "painted the herring green." The blurb on the jacket, written presumably with Wolff's knowledge and consent, affirms that "existential psychology interprets the data in terms of this unique pattern or value system, whereas the various analytic concepts put all human manifestations into a straight jacket." In the text proper, Wolff repeatedly reiterates these pretensions.

"Experimental psychology focuses upon man's conscious behavior and depth psychology upon man's unconscious behavior, both attempting to recognize static response patterns; both deal with the outer and the inner world as stimuli which are given by heredity or acquired from the environment. Existential psychology does not focus so much upon man's behavior as upon the *intent*, attempting to recognize the forces that have a dynamic influence upon his response. These forces are transforming and creative agents. From the point of view of existential psychology the world is not given, nor is the world acquired; the world is *created* by the individual" (pp. 32, 33).

The indictment against both experimental psychology and depth psychology is fallacious, and the alleged distinction of "existential psychology" is fictitious. Actually Wolff appears to have appropriated, not always with full competence, certain basic concepts common to dynamic psychiatry, and to have obfuscated them by adding wherever pos-

sible the word existential. The sentence, "Any existential behavior is determined by an existential experience which has a causal and a teleological effect at the same time," gains in significance and clarity when the term existential is eliminated. In the appended glossary the author attempts to remind the common coin of the psychiatric realm. In the stead of attitude, conflict, crisis, dream, neurosis, and the like, he would have us think and talk of *existential attitude, existential conflict, existential crisis, etc.* And what does *existential* basically mean? "That which challenges our existence" (p. 213). But there is nothing useful in the appendage *existential*. It does not add, but detracts from meaning and significance. "We may call neurosis an existential story, because the problem of existence is its 'leitmotif,'" writes the author (p. 13). But then when was it otherwise with the neurosis?

In his attempts to be novel, the author entangles himself, and his reader, in a plethora of words. Here is a typical example:

"Thus, for existential psychology the difference between causal and teleological disappears in the existential response and the difference between body and mind disappears in existential manifestation. In other words, existential behavior is determined simultaneously by causal-teleological processes and is manifest simultaneously in psychosomatic unity."

It was said of the Germans that they had ideas for which they had no words. It would seem that the opposite is also possible.

The exposition of existential psychology forms the first part of the book. It is rounded off with a Mosaic decalogue entitled, "Man's Ethical Postulates." Interestingly enough, the author gives exactly *ten* existential postulates.

Possibly the best statement on the author's thesis is to be found in the simple sentence (p. 17), "Existential psychology deals with the *creative act* and the *goal* toward which the individual is moving." In this statement we recognize at once the familiar emphases of Adolf Meyer and Paul Schilder: the *creative act* and the *goal*. Interestingly enough, neither Meyer nor Schilder is mentioned by Wolff and only one of Schilder's contributions is listed in the Bibliography. Adolf Meyer is conspicuous by his absence.

IAGO GALDSTON, M.D.,  
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A GUIDE TO PSYCHIATRIC BOOKS WITH SUGGESTED BASIC READING LIST. By *Karl A. Menninger, M.D.* and *George Devereux, Ph.D.* (New York: Grune and Stratton, 1950. Price: \$3.50.)

Whoever picks an All-American team or tries to list the 10 best dressed women is going to attract a lot of criticism. It is with commendable courage, therefore, that Dr. Menninger and Dr. Devereux now offer this two-part work, which must be unique in the annals of psychiatry. The first part lists some 1,200 book titles grouped in such categories as philosophy of science, psychopathology, anthro-

pology, military psychiatry, personology *et cetera*. Then comes a list "of books which the psychiatric resident should read during his three years of training." This includes 76 titles. With alternative selections removed, there are still 52 fat volumes to be covered. The resident who survives this literary diet will be a well-rounded man. He will have read, no doubt from cover to cover, texts on nursing, hospital administration, criminology, anthropology, art, religion, personology, industrial management, and clinical psychiatry.

The "guide" that comprises the first part of this book is heavily weighted with titles on ancillary sciences and techniques. It is a treasury of important bound works in our specialty and in a dozen related disciplines. Because of the rapid obsolescence of bound books, the compilers plan to provide frequent new editions. It seems unlikely that these revisions can ever keep pace with the expanding frontiers of psychiatry. Most of us will prefer to rely on journals for the day-by-day intellectual fuel needed to keep us in step. This book offers no citations to the periodical literature, so that it provides essentially a skeleton on which to erect the body of psychiatric knowledge. The superstructure comes only from the journal literature. This necessarily limits the value of this otherwise amazing and well-classified compendium of psychiatric books. It will, however, be a life-saver for any doctor who has responsibility for the training and teaching of psychiatrists.

HENRY A. DAVIDSON, M.D.,  
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CHILDREN'S APPERCEPTION TEST (C. A. T.). By *Leopold and Sonya S. Bellak*. (New York: C. P. S. Company, 1949.)

It is gratifying to know that now, in addition to Murray's T. A. T. for adults and Symond's Picture-Story tests for adolescents, we also have a projective technique that may be applied to the age-group of 3 to 10. Unlike its forerunners, however, the C. A. T. employs the use of animal pictures in contrast to pictures of humans on the assumption that animals might be preferred identification figures for children of this age.

The C. A. T. consists of 10 pictures of animals in various situations. It is to be used with children of both sexes, the responses being recorded verbatim and later analyzed according to the principles laid down for other projective techniques. An accompanying pamphlet describes the history of the C. A. T., the nature, purpose, and administration of the test, typical responses, interpretations of the stories, an analysis sheet, and lastly some samples of responses.

The C. A. T. was designed to facilitate understanding of a child's relationship to his most important figures and drives. The pictures were designed in the hope of eliciting responses in relation to feeding problems, sibling rivalry, the attitude toward parental figures, the child's relationship to the parents as a couple, fantasies around aggression,

acceptances by the adult world, toilet behavior, and the child's methods of handling his problems of growth.

The Bellaks believe that the C. A. T. may be clinically useful in determining the dynamic factors related to a child's reactions in a group or to events at home. It may be profitable in the hands of psychiatrists, psychologists, social workers, and teachers as well as psychologically trained pediatricians.

Good rapport is extremely important in the administration of the C. A. T. Whenever possible, it should be presented as a game, not as a test. Although encouragement may be necessary, one must avoid being suggestive in one's prompting.

The interpretation is facilitated by the use of the C. A. T. blank and analysis sheet. This includes 10 variables: the main theme, the main hero (or heroine), attitudes to parental figures, family roles, figures or objects or external circumstances introduced, objects or figures omitted, nature of anxieties, significant conflicts, punishment for crime, and outcome.

The above statements are based on approximately 100 records of children between the ages of 3 and 10. The Bellaks have released these pictures in the hope that the work and publications of other investigators will contribute additional data. They furthermore express a strong desire to cooperate with those users of the C. A. T. who may wish to appraise them of their findings and suggestions.

The C. A. T. is well on its way toward finding for itself an important role in the field of projective techniques in child psychiatry. It may be well to point out, however, that, since it is a projective technique, its value in this field is directly proportional to the ability of the individual attempting its interpretation. When such limitations are recognized, the C. A. T. may be used to good advantage.

HERBERT HERMAN, M.D.,  
The Children's Psychiatric Service,  
The Johns Hopkins Hospital

NEUROSIS AND PSYCHOSIS. By Beulah Chamberlain Bosselman. (Springfield, Ill.: Chas. C. Thomas, 1950. Price: \$5.50.)

The aim of this slim volume is to give the student a general orientation in the field of psychiatry. Following a brief discussion on the nature of symptoms each of the major types of personality disorders is considered in terms of symptomatology, prognosis, treatment and psychodynamics. The sections on psychodynamics that attempt to explain the development and significance of the symptoms to the patient are perhaps of most value in acquainting the student with the modern approach to emotional disorders. Illustrative case material further accents the relationship between the patient's personality and his symptoms. A short list of supplementary readings is appended to the discussion of each illness entity.

The brevity and conciseness of the volume tend to result in a didactic and in many ways an oversimplified approach to psychiatry. While this is an aid to the beginner in his initial survey of the field it

may also mislead him. However, if the student is aware of this pitfall "Neurosis and Psychosis" will prove helpful in giving him a general orientation in psychiatry.

W. D. VOORHEES, JR., M.D.,  
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PSYCHOSOMATIC MEDICINE—ITS PRINCIPLES AND APPLICATIONS. By Franz Alexander, M.D. (New York: W. W. Norton & Company, Inc., 1950. Price: \$4.00.)

This is the latest contribution by Dr. Alexander to that old-new branch of medicine that he, among others, has popularized under the name "psychosomatic medicine." It is old in that it stresses the multiple etiology of all disorders that doctors treat, and the great importance of the emotional factors. Psychiatrists have been emphasizing those points for years. The new part of it is the significance given to the "dynamic configuration" in which the emotional factors appear to be understood, of course, only through skilled psychoanalytic investigation, rather than to the external personality make-up and life situation that anyone might describe. "The true psychosomatic correlations are between emotional constellations and vegetative responses."

This book, like his preceding one, is very well written, and makes interesting reading. It is extremely engaging to follow the way in which he arrives at his specific correlations, such as the following: Asthma is a suffocated cry for the mother; peptic ulcer is the organic change following a frustrated longing to be fed by the mother; diarrhea is a means of making restitution (by giving the valued feces) for having been dependent, and constipation is a withholding of the gift because one cannot depend on others; arthritis results when one's method of expressing hostility through benevolent tyranny is blocked; thyrotoxicosis occurs when an enforced premature striving for self-sufficiency meets with failure; hypertension is related to the inhibition of aggressive hostile impulses.

There is a tendency for us all to feel that, once etiology is known, successful treatment is immediately possible. It is that popular fallacy that makes me somewhat defensive toward this book, for no nonpsychoanalytic physician can himself use its facts directly, no matter how true they may be, but the laymen who read books of this kind will want us to do so. Taken as a contribution to the theory of etiology, this work has great value, and would be interesting for doctors to read in their medical journals. Furthermore, I am sure it is also a contribution to therapy valuable to practicing psychoanalysts, for they may by the book be given insights that help them to direct the insight-seeking of a patient. But neither the asthma patient nor his doctor is helped, right now, by knowing that the patient got that way by retaining a powerful wish to be cuddled in his mother's arms.

E. J. ALEXANDER, M.D.,  
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PSYCHOLOGY AND MENTAL HEALTH—A CONTRIBUTION TO DEVELOPMENTAL PSYCHOLOGY. By J. A. Hadfield. (London: George Allen and Unwin, Ltd.; New York: Macmillan, 1950. Price: \$2.75.)

This entertainingly written and somewhat popularized consideration of the psychoneuroses and behavior disorders is a comprehensive study of not only the clinical manifestations but also the dynamics and the conflicts involved. The classification of the psychoneuroses is divided logically, if somewhat unusually, into conversion hysteria, psychosomatic disorders, anxiety states, sex perversions, obsessions, and personality disorders. The behavior disorders are considered separately.

The introductory portion of the book deals with the scope of mental health and the sources of behavior, evaluating such factors as the aims of mental hygiene, central organization and dispositions, reflexes, consciousness, types of character traits, the biological estimation of the psychoneuroses, and the general etiology of the psychoneuroses.

The clinical section considers the various psychoneuroses in detail as to causes, types, symptoms, purposes, and treatment. Illustrative case material is used frequently. The chapters on the psychosomatic disorders, hysteria, and the obsessional neuroses are especially edifying. The general tone of interpretation is strongly analytical, although other methods of approach are discussed briefly. The author apparently prefers the direct reductive analysis rather than the more orthodox method of analysis by transference. He accepts, in the main, the Freudian use of free association and explanation of the mental processes found in the psychoneuroses, such as conflict, repression, and projection. He differs in his conclusions regarding the psychopathology of the transference, using dreams only as a second line of interpretation, preferring to discover the actual incidents and experiences, especially in early childhood.

The author's style is lucid and easily understood and many of the premises are thought-provoking and somewhat at variance with other productions in this field.

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GESTALT PSYCHOLOGY. By David Katz, translated by Robert Tyson. (New York: Ronald Press, 1950. Price: \$3.00.)

This book was first published in a Swedish edition in 1942. The author, while he takes occasional exception to the theoretical positions of other Gestalt writers including Wertheimer, Koffka, and Kohler, offers in this volume a condensed but in general very clear and comprehensive statement of the principles of Gestalt psychology. Numerous illustrations take advantage of the fact that the chief field of application of Gestalt principles is in visual perception and that this field lends itself to visual demonstration. Chief emphasis is on the general law of *pregnancy*, which Koffka had stated: "Psycho-

logical organization will always be as good as the controlling circumstances permit." In this statement "good" includes such characteristics as regularity, symmetry, inclusiveness, unity, harmony, maximal simplicity and conciseness." Gestalt psychology in these terms is clearly a continental development and contrasts sharply with the British and American tradition, which puts the emphasis on determining *how* such end products as regularity, symmetry, inclusiveness, unity, and the like are attained. Sherrington, Haldane, Cannon, and others have attempted to discover the mechanisms by which constant states are maintained and both British and American psychologists have attempted to describe how experience operates to bring about such end results as insight and problem solution. This volume by Katz brings out clearly the concentration of Gestalt psychologists on the end results of experience, with no concern over the problem how these results are achieved. A very short chapter on medical psychology (3 pages) describes, for instance, the tendency in hemianopsia to establish a new functional center of vision. How experience can bring this about is an issue not raised.

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THE CLIFF'S EDGE: SONGS OF A PSYCHOTIC. By Eithne Tabor. (New York: Sheed and Ward, 1950.)

This is an interesting book for two reasons: the circumstances of its writing and subject and the contents of the book itself.

From the point of view of pure poetry, the writing is good. There is a strong emotional tone expressed in vivid phrases and much suggestion of torment and struggle in the individual poems, which have unusual freedom and vitality.

From the psychiatric point of view, the material is not unusual, except for two facts. It has a rhythm control and an organization not characteristic of the psychotic. From a distance and by tele-diagnosis, I would suggest that the individual was not psychotic but more on the hysterical side, because the poems are too clear, too unconfused, and contain an awareness and insight that of themselves are a denial of the essence of "psychosis."

For that reason, I would question the advisability of the subtitle "Songs of a Psychotic" and would suggest that if these poems ever go into a second edition (as they might) it would be well to call them simply "The Cliff's Edge."

MERRILL MOORE, M. D.,  
Boston, Mass.

THEORY OF MENTAL TESTS. By H. Gulliksen. (New York: John Wiley & Sons, 1950. Price: \$6.00.)

For the neophyte in the field of tests and measurements the title of this volume may prove misleading. The sophisticated test-oriented psychologist will find that this book affords excellent insights into those considerations that influence the construction of psychological tests.

The 21 chapters develop in a logical sequence the theoretical and practical problems that arise, and should be solved, in test construction. For example, in the second chapter, "Basic Equations Derived from a Definition of Random Error," there is a skillful translation of the qualitative aspects of test theory into statistical language and a subsequent retranslation of these numerical concepts into English that adds considerably to the understanding of the ideas in this chapter. Other chapters written in a similar vein study the errors of measurement, issues concerned with test length and its effects on mean and variance, on reliability, and validity. An interestingly valuable feature of the book is the subject matter for Chapter 21, "Item Analysis." This section is especially important for test constructors and teachers of courses in test and measurement theory.

The author not only assumes but states quite frankly and early that his reader must have a basic working knowledge of algebra and the use of logarithmic concepts, be familiar with analytical geometry, and be able to deal with elementary statistical techniques before going far into the volume. However, these are briefly reviewed in an appendix to refresh the reader. Other fine addenda (of use to the reader and classroom instructor) are the many problems covering the material in each chapter and the appended answers. Sample examination questions in test theory for use at the beginning, during, and upon completion of the course indicate the care with which this volume was written for practical application.

The author's background equips him well for this task. One must agree with him when he writes: "Although this book is written primarily for those working in test development, it is interesting to note that the techniques presented here are applicable in many fields other than test construction. Many of the difficulties that have been encountered and solved in the testing field also confront workers in other areas such as measurement of attitudes and opinions, appraisal of personality, and clinical diagnosis." This volume is recommended for an advanced and graduate course in test theory and/or construction.

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University of Miami.

SEXUAL FEAR. By Edwin W. Hirsch, B.S., M.D.  
(Garden City, N. Y.: Garden City Publishing Co., 1950.)

Dr. Hirsch is attending urologist at the Englewood Hospital in Chicago and the author of "The Power to Love," "Modern Sex Life," and "Prostate Gland Disorder." In his introductions to "Sexual Fear" he says, "My clinical studies have given me the opportunity of observing the benefits which accrue from counteracting sexual fear. By explaining the origin, nature, and action of sexual fear, the enigma of sexual incompetency owing to fear may be clarified. Teaching the patient to train adroitly his sexual function in an atmosphere of confidence is the simplest way to eradicate the arresting influence of the sexual fear bogey."

"Sexual Fear" has 290 pages of text, an adequate bibliography and index. The first 110 pages are devoted to sexual beliefs and practices in ancient Babylonia, Egypt, Israel, Greece, and Rome. His historical notations are informative and appear to be accurate but he gives no clue as to their source.

Following this historical section is a chapter on "The Sexual Revolution," which is an account of the invasion of Italy by Charles VIII of France and the infection of his army with syphilis. This episode is noted as the beginning of a public recognition of syphilis and of the attempts of physicians to treat the disease.

The remainder of the book deals largely with "the emotion of sexual fear" and concludes with a chapter on "Treatment of Sexual Fear by Psychomatics." The author gives a definition of the new term. "Psychomatic is a term which I have coined to designate my system of investigating and correcting disordered sexual function in which the element of sexual fear is dominant. The word 'psychomatic' refers not only to the mind, body, and environment of man but also to the influences outside of the self as well as within the self by which man is subject to change."

Dr. Hirsch does not tell us who his preferred readers might be but his language suggests that he is addressing the general public. His remarks do not disclose psychiatric training but they appear to be those of a physician who has had considerable practical experience in dealing with psychosexual problems.

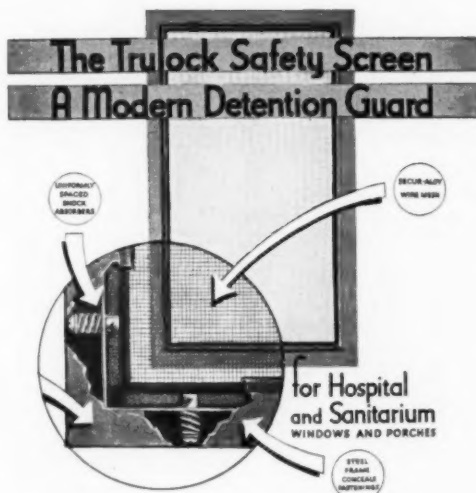
GEORGE W. HENRY, M.D.,  
Greenwich, Conn.



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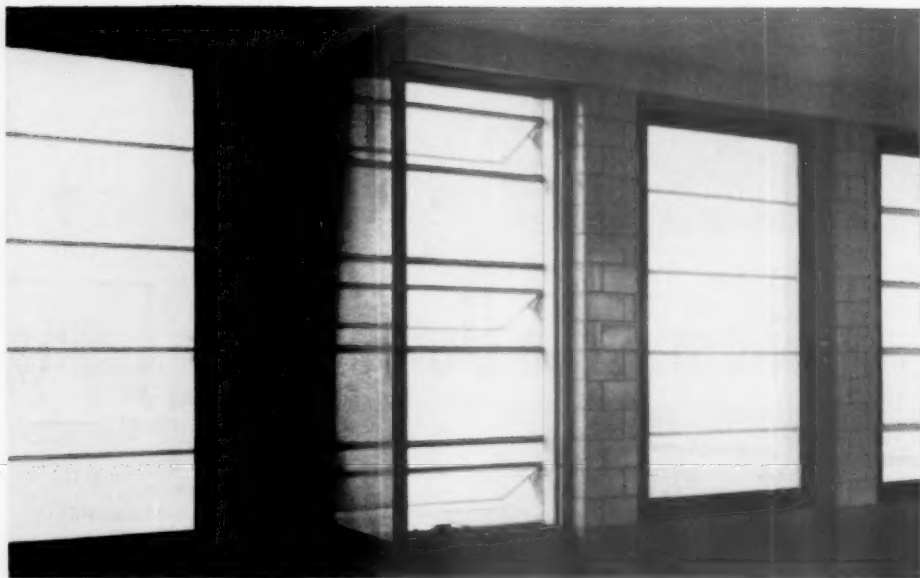
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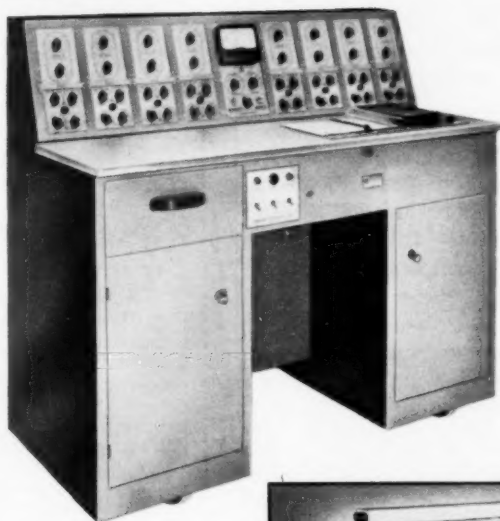
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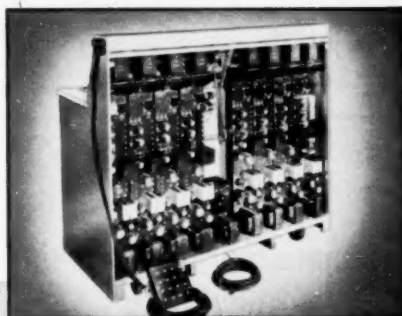
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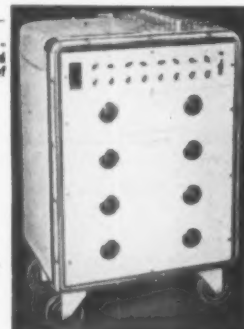
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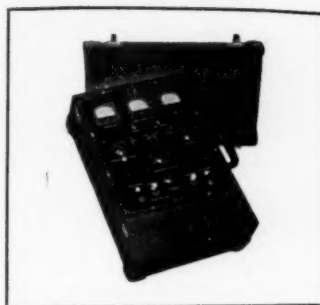


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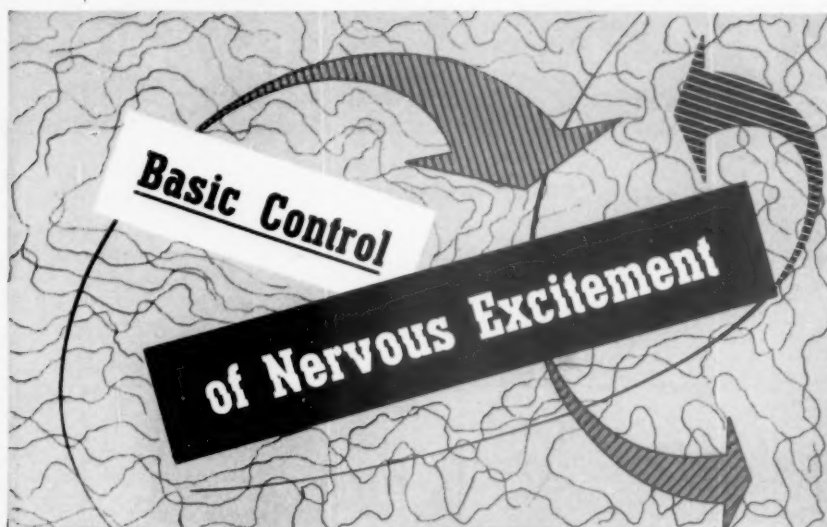
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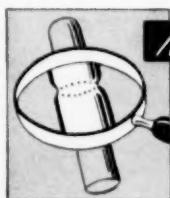
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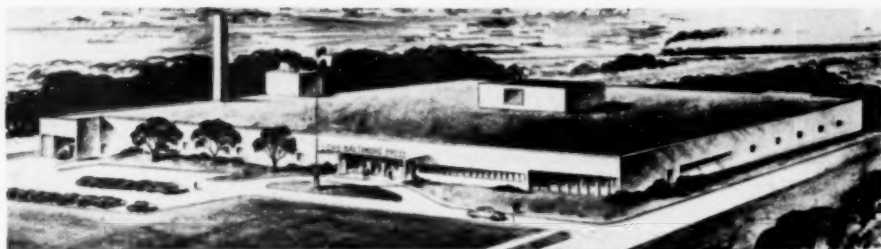
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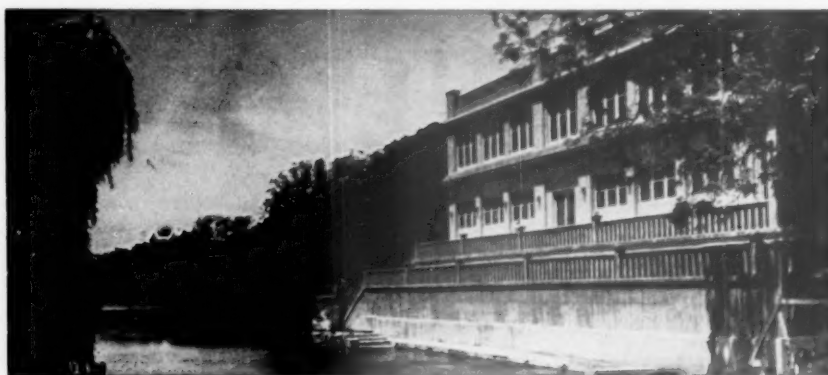
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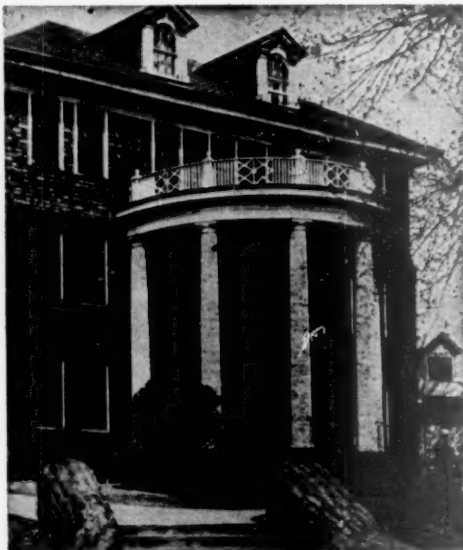
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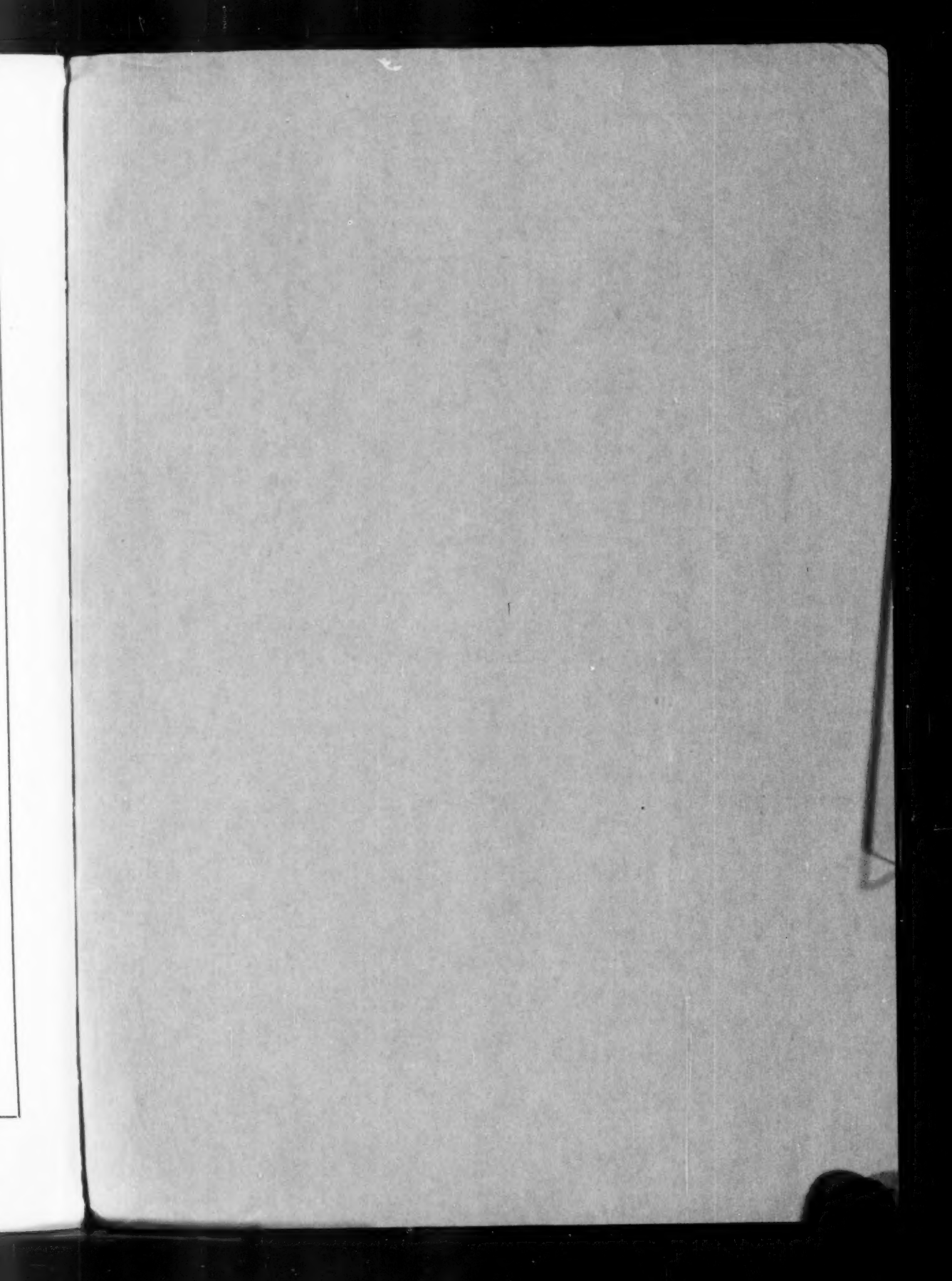
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